

IBC, Chapter 11: ACCESSIBILITY



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Chapter 11: accessibility

Sec. 131. Delete Chapter 11 and substitute the following:

CHAPTER 11 - PART 1 - ACCESSIBILITY FOR PUBLIC ACCOMMODATIONS AND COMMERCIAL FACILITIES

1.0 General.

1.1 Purpose. The purpose of this part is to implement a rule within the statutory authority of IC 22-13-2-2 and IC 22-13-4-1.5 that is compatible with Title III of the Americans with Disabilities Act of 1990 (42 U.S.C. 12181), which prohibits discrimination on the basis of disability and requires places of public accommodation and commercial facilities to be designed and constructed for accessibility by persons with a disability; requires that an alteration of an existing facility be made so that the alteration complies with the readily achievable barrier removal provisions of the Americans with Disabilities Act Accessibility Guidelines (28 CFR 36.101 et seq.); and allows the use of reasonable and cost-effective alternative means of public access or service if the alternative means are consistent with the Americans with Disabilities Act (42 U.S.C. 12181 et seq.).

1.2 Application.

- (1) General. This part applies to the design and construction of any public accommodation or commercial facility.
- (2) The requirements of this part obligate a public accommodation only with respect to the accommodation.
- (3) The requirements of this part obligate a public accommodation only with respect to:
 - (a) a facility designed or constructed for use as a place of public accommodation; or
 - (b) a facility designed and constructed for use as a commercial facility.
- (4) Part 1 applies to the design and construction of any private club, religious entity, and public entity. Private clubs, religious entities, and public entities shall be considered a place of public accommodation.
- (5) General exceptions.

(a) In new construction, a person or entity is not required to meet fully the requirements of this rule where that person or entity can demonstrate that it is structurally impracticable to do so. Full compliance will be considered structurally impracticable only in those rare circumstances when the unique characteristics of terrain prevent the incorporation of accessibility features. If full compliance with the requirements of this rule is structurally impracticable, a person or entity shall comply with the requirements to the extent it is not structurally impracticable. Any portion of the building or facility which can be made accessible shall comply to the extent that it is not structurally impracticable.

(b) Accessibility is not required to (i) observation galleries used primarily for security purposes; or (ii) in nonoccupiable spaces accessed only by ladders, catwalks, crawl spaces, very narrow passageways, or freight (nonpassenger) elevators, and frequented only by service personnel for repair purposes; such spaces include, but are not limited to, elevator pits, elevator penthouses, piping, or equipment catwalks.

1.3 Definitions.

COMMERCIAL FACILITIES means facilities:

- (1) whose operations will affect commerce;
- (2) that are intended for nonresidential use by a private entity;
- (3) that are Class 1 structures under IC 22-12-1-4; and
- (4) that are not facilities that are covered under Part 2 of Chapter 11.

FACILITY means all or any portion of Class 1 structures, site improvements, complexes, roads, walks, or parking lots on the site where the Class 1 structure is located.

PLACE OF PUBLIC ACCOMMODATION means a facility that falls within at least one (1) of the following categories:

- (1) An inn, hotel, motel, or other place of lodging, except for an establishment located within a building that contains not more than five (5) rooms for rent or hire and

that is actually occupied by the proprietor of the establishment as the residence of the proprietor.

(2) A restaurant, bar, or other establishment serving food or drink.

(3) A motion picture house, theater, concert hall, stadium, or other place of exhibition or entertainment.

(4) An auditorium, convention center, lecture hall, or

other place of public gathering.

(5) A bakery, grocery store, clothing store, hardware store, shopping center, or other sales or rental establishment.

(6) A laundromat, dry cleaner, bank, barber shop, beauty shop, travel service, shoe repair service, funeral parlor, gas station, office of an accountant or lawyer, pharmacy, insurance office, professional office of a health care provider, hospital, or other service establishment.

(7) A terminal, depot, or other station used for specified public transportation.

(8) A museum, library, gallery, or other place of public display or collection.

(9) A park, zoo, amusement park, or other place of recreation.

(10) A nursery, elementary, secondary, undergraduate, or postgraduate private school, or other place of education.

(11) A day care center, senior citizen center, homeless shelter, food bank, adoption agency, or other social service center establishment.

(12) A gymnasium, health spa, bowling alley, golf course, or other place of exercise or recreation.

(13) Private clubs.

(14) Religious entities.

(15) Public entities.

PRIVATE CLUB means a private club or establishment not in fact open to the public.

PRIVATE ENTITY means a person or entity other than a public entity.

PUBLIC ACCOMMODATION means a private entity that owns, leases (or leases to), or operates a place of public accommodation.

PUBLIC ENTITY means:

(1) any state or local government; or

(2) any department, agency, special purpose district, or other instrumentality of a state or states or local government.

RELIGIOUS ENTITY means a religious organization, including a place of worship.

2.1 Scope.

(a) Commercial facilities located in private residences.

(1) When a commercial facility is part of a private residence as new construction or as a change of occupancy, the portion of the residence used exclusively as a residence is not covered by this part, but the portion used exclusively in the operation of the commercial facility or that portion used both for the commercial facility and for residential purposes is covered by the new construction requirements of this part.

(2) The portion of the residence covered under paragraph (a)(1) of this section extends to those elements used to enter the commercial facility, including:

(A) the homeowner's front sidewalk, if any;

(B) the door or entryway and hallways; and

(C) those portions of the residence, interior or exterior, available to or used by employees or visitors of the commercial facility, including rest rooms.

(b) Elevator exemption.

(1) For the purposes of this paragraph:

(A) PROFESSIONAL OFFICE OF A HEALTH CARE PROVIDER means a location where a person or entity regulated by the state to provide professional services related to the physical or mental health of an individual makes such services available to the public. The facility housing the professional office of a health care provider only includes floor levels housing at least one (1) health care provider or any floor level designed or intended for use by at least one (1) health care provider.

(B) SHOPPING CENTER OR SHOPPING MALL means either of the following:

- (i) A building housing five (5) or more sales or rental establishments.
- (ii) A series of buildings on a common site, either under common ownership or common control or developed either as one (1) project or as a series of related projects, housing five (5) or more sales or rental establishments. For purposes of this section, places of public accommodation of the types listed in the definition of PLACE OF PUBLIC ACCOMMODATION subdivisions one (1) through twelve (12) in section 1.3 are considered sales or rental establishments. The facility housing a shopping center or shopping mall only includes floor levels housing at least one (1) sales or rental establishment or any floor level designed or intended for use by at least one (1) sales or rental establishment.

(2) This section does not require the installation of an elevator in a facility that is less than three (3) stories or has less than three thousand (3,000) square feet per story, except with respect to any facility that houses one (1) or more of the following:

(A) A shopping center, a shopping mall, or a professional office of a health care provider.

(B) A terminal, depot, or other station used for specified public transportation or an airport passenger terminal. In such a facility, any area housing passenger services, including boarding and disembarking, loading and unloading baggage claim, dining facilities, and other common areas open to the public, must be on an accessible route from an accessible entrance.

(3) The elevator exemption set forth in this paragraph (b) does not obviate or limit, in any way, the obligation to comply with the other accessibility requirements established in paragraph (a) of this section. For example, in a facility that houses a shopping center, a shopping mall, or a professional office of a health care provider, the floors that are above or below an accessible ground floor and that do not house sales or rental establishments or a professional office of a health care provider must meet the requirements of this section but for the elevator.

SCOPE AND TECHNICAL REQUIREMENTS

3.1 Provisions for Adults. The specifications in these guidelines are based upon adult dimensions and anthropometrics, except for 11.1 through 11.10.4.

3.2 Dimensional Tolerances. All dimensions are subject to conventional building industry tolerances for field conditions.

3.3 Graphic Conventions. Graphic conventions are shown in Table 1. Dimensions that are not marked minimum or maximum are absolute, unless otherwise indicated in the text or captions.

3.4 Definitions applicable to Part 1 of this Chapter only:
ACCESS AISLE means an accessible pedestrian space between elements that provides clearances appropriate for use of the elements.

ACCESSIBLE means a site, building, facility, or portion thereof that complies with this part.

ACCESSIBLE ELEMENT means an element specified by this part.

ACCESSIBLE ROUTE means a continuous, unobstructed path connecting all accessible elements and spaces of a building or facility. Interior accessible routes may include corridors, floors, ramps, elevators, lifts, and clear floor space at fixtures. Exterior accessible routes may include parking access aisles, curb ramps, crosswalks at vehicular ways, walks, ramps, and lifts within the site where the Class 1 structure is located.

ACCESSIBLE SPACE means space that complies with this part.

ADAPTABILITY means the ability of certain building spaces and elements, such as kitchen counters, sinks, and grab bars, to be added or altered so as to accommodate the needs of persons with or without disabilities or to accommodate the needs of persons with different types or degrees of disability.

ADDITION means all expansion, extension, or increase in the gross floor area of a building or facility.

ADMINISTRATIVE AUTHORITY means the state building commissioner or officer of a local unit of government empowered by law to administer and enforce the rules of the fire prevention and building safety commission. For the purposes of Industrialized Building Systems (675 IAC 15), ADMINISTRATIVE AUTHORITY means the state building commissioner.

AREA OF RESCUE ASSISTANCE means an area, which has direct access to an exit, where people who are unable to use stairs may remain temporarily in safety to await further instructions or assistance during emergency evacuation.

ASSEMBLY AREA means, for the purposes of Part 1, a room or space accommodating a group of individuals for recreational, educational, political, social, or amusement purposes, or for the consumption of food and drink.

AUTOMATIC DOOR means a door equipped with a power-operated mechanism and controls that open and close the door automatically upon receipt of a momentary actuating signal. The switch that begins the automatic cycle may be a photoelectric device, floor mat, or manual switch (see **POWER-ASSISTED DOOR**).

BUILDING means any structure used and intended for supporting or sheltering any use or occupancy.

CIRCULATION PATH means an exterior or interior way of passage from one (1) place to another for pedestrians, including, but not limited to, walks, hallways, courtyards, stairways, and stair landings.

CLEAR means unobstructed.

CLEAR FLOOR SPACE means the minimum unobstructed floor or ground space required to accommodate a single, stationary wheelchair and occupant.

CLOSED CIRCUIT TELEPHONE means a telephone with dedicated line(s) such as a house phone, courtesy phone, or phone that must be used to gain entrance to a facility.

COMMON USE means those interior and exterior rooms, spaces, or elements that are made available for the use of a restricted group of people, for example, occupants of a homeless shelter, the occupants of an office building, or the guests of such occupants.

CROSS SLOPE means the slope that is perpendicular to the direction of travel (see **RUNNING SLOPE**).

CURB RAMP means a short ramp cutting through a curb or built up to it.

DETECTABLE WARNING means a standardized surface feature built in or applied to walking surfaces or other elements to warn visually impaired people of hazards on a circulation path.

DWELLING UNIT means, for the purposes of Part 1, a single unit which provides a kitchen or food preparation area, in addition to rooms and spaces for living, bathing, sleeping, and the like. Dwelling units include:

- (1) a single family home or a town house used as a transient group home;
- (2) an apartment building used as a shelter;

- (3) guest rooms in a hotel that provide sleeping accommodations and food preparation areas; and
- (4) other similar facilities used on a transient basis.

For the purposes of Part 1, use of the term **DWELLING UNIT** does not imply the unit is used as a residence.

EGRESS, MEANS OF means, for the purposes of Part 1, a continuous and unobstructed way of exit travel from any point in a building or facility to a public way. A means of egress comprises vertical and horizontal travel and may include intervening room spaces, doorways, hallways, corridors, passageways, balconies, ramps, stairs, enclosures, lobbies, horizontal exits, courts, and yards. An accessible means of egress is one that complies with Part 1 and does not include stairs, steps, or escalators. Areas of rescue assistance or evacuation elevators may be included as part of accessible means of egress.

ELEMENT means an architectural or mechanical component of a building, facility, space, or site.

ENTRANCE means any access point to a building or portion of a building or facility used for the purpose of entering. An entrance includes the approach walk, the vertical access leading to the entrance platform, the entrance platform itself, vestibule if provided, the entry door(s) or gate(s), and the hardware of the entry door(s) or gate(s).

FACILITY means all or any portion of a Class 1 structure, site improvements, complexes, roads, walks, or parking lots on the site where the Class 1 structure is located.

GROUND FLOOR means, for the purposes of Part 1, any occupiable floor less than one (1) story above or below grade with direct access to grade. A building or facility always has at least one (1) ground floor and may have more than one (1) ground floor as where a split level entrance has been provided or where a building is built into a hillside.

MARKED CROSSING means a crosswalk or other identified path intended for pedestrian use in crossing a vehicular way, located on the site where the Class 1 building or structure is located.

MEZZANINE OR MEZZANINE FLOOR means, for the purposes of Part 1, that portion of a story which is an intermediate floor level placed within the story and having occupiable space above and below its floor.

MULTIFAMILY DWELLING means any building containing more than two (2) dwelling units.

OCCUPIABLE means a room or enclosed space designed for human occupancy:

(1) in which:

(A) individuals congregate for amusement, educational or similar purposes; or

(B) occupants are engaged at labor; and

(2) which is equipped with means of egress, light, and ventilation.

OPERABLE PART means a part or a piece of equipment or appliance used to insert or withdraw objects, or to activate, deactivate, or adjust the equipment or appliance, for example, coin slot, push button, or handle.

POWER-ASSISTED DOOR means a door used for human passage with a mechanism that helps to open the door, or relieves the opening resistance of a door, upon the activation of a switch or a continued force applied to the door itself.

PUBLIC USE means interior or exterior rooms or spaces that are made available to the general public. Public use may be provided at a building or facility that is privately or publicly owned.

RAMP means, for the purposes of Part 1, a walking surface which has a running slope greater than 1:20.

RUNNING SLOPE means the slope that is parallel to the direction of travel (see CROSS SLOPE).

SERVICE ENTRANCE means an entrance intended primarily for delivery of goods or services.

SIGNAGE means displayed verbal, symbolic, tactile, and pictorial information.

SITE means a parcel of land bounded by a property line or a designated portion of a public right-of-way.

SITE IMPROVEMENT means landscaping, paving for pedestrian and vehicular ways, outdoor lighting, recreational facilities, and similar improvements added to a site.

SLEEPING ACCOMMODATIONS means rooms in which people sleep, for example, dormitory and hotel or motel guest rooms or suites.

SPACE means a definable area, such as room, toilet room, hall, assembly area, entrance, storage room, alcove, courtyard, or lobby.

STORY means, for the purposes of Part 1, that portion of a building included between the upper surface of a floor and the upper surface of the floor or roof next above. If such portion of a building does not include occupiable space, it is not considered a story for purposes of Part 1. There may be more than one (1) floor level within a story as in the case of a mezzanine or mezzanines.

STRUCTURAL FRAME means the structural frame shall be considered to be the columns and the girders, beams, trusses, and spandrels having direct connections to the columns and all other members which are essential to the stability of the building as a whole.

TACTILE means an object that can be perceived using the sense of touch.

TEXT TELEPHONE means machinery or equipment that employs interactive graphic (i.e., typed) communications through the transmission of coded signals across the standard telephone network. Text telephones can include, for example, devices known as TDD's (telecommunication display devices or telecommunication devices for deaf persons) or computers.

TRANSIENT LODGING means a building, facility, or portion thereof, excluding in-patient medical care facilities, that contains one (1) or more dwelling units or sleeping accommodations. Transient lodging may include, but is not limited to, resorts, group homes, hotels, motels, and dormitories.

VEHICULAR WAY means a route intended for vehicular traffic, such as a street, driveway, or parking lot, within the site where a Class 1 structure is located.

WALK means an exterior pathway with a prepared surface intended for pedestrian use, including general pedestrian areas such as plazas and courts, within the site where a Class 1 structure is located.

4.0 Accessible Elements, Routes, and Spaces.

4.1 Minimum Requirements.

4.1.1 Application.

(1) General. All areas of newly designed or newly constructed buildings and facilities required to be accessible by section 4.1.2 and section 4.1.3.

(1) Application Based on Building Use. Special application [*sic.*] sections 5 through 9 provide additional requirements for restaurants and cafeterias, medical care facilities, business and mercantile, libraries, and accessible transient lodging. When a building or facility contains more

than one (1) use covered by a special application section, each portion shall comply with the requirements for that use.

(2) Areas Used Only by Employees as Work Areas. Areas that are used only as work areas shall be designed and constructed so that persons with a disability can approach, enter, and exit the areas. This part does not require that any areas used only as work areas be constructed to permit maneuvering within the work area or be constructed or equipped, such as racks or shelves, to be accessible.

(3) Temporary Structures. Chapter 11 covers temporary buildings or facilities as well as permanent facilities. Temporary buildings and facilities are not of permanent construction but are extensively used or are essential for public use for a period of time. Examples of temporary buildings or facilities covered by this rule include, but are not limited to, reviewing stands, temporary classrooms, bleacher areas, exhibit areas, temporary banking facilities, temporary health screening services, or temporary safe pedestrian passageways around a construction site. Structures, sites, and equipment directly associated with the actual processes of construction, such as scaffolding, bridging, materials hoists, or construction trailers, are not included.

(4) Accessibility is not required on:

(A) observation galleries used primarily for security purposes; or

(B) in nonoccupiable spaces accessed only by ladders, catwalks, crawl spaces, very narrow passageways, or freight (nonpassenger) elevators and frequented only by service personnel for repair purposes; such spaces include, but are not limited to, elevator pits, elevator penthouses, piping, or equipment catwalks.

4.1.2 Accessible Sites and Exterior Facilities: New Construction.

An accessible site shall meet the following minimum requirements:

(1) At least one (1) accessible route complying with section 4.3 shall be provided within the boundary of the site from public transportation stops, accessible parking spaces, passenger loading zones, if provided, and public streets or sidewalks to an accessible building entrance.

(2) At least one (1) accessible route complying with section 4.3 shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

(3) All objects that protrude from surfaces or posts into circulation paths shall comply with section 4.4.

(4) Ground surfaces along accessible routes and in accessible spaces shall comply with section 4.5.

(3) Reserved.

(4) If toilet facilities are provided on a site, then each such public or common use toilet facility shall comply with section 4.22. If bathing facilities are provided on a site, then each such public or common use bathing facility shall comply with section 4.23.

(5) Building Signage. Signs which designate permanent rooms and spaces shall comply with sections 4.30.1, 4.30.4, 4.30.5, and 4.30.6. Other signs which provide direction to, or information about, functional spaces of the building shall comply with sections 4.30.1, 4.30.2, 4.30.3, and 4.30.5.

Elements and spaces of accessible facilities which shall be identified by the international symbol of accessibility and which shall comply with section 4.30.7 are as follows:

(a) Parking spaces designated as reserved for persons with a disability.

(b) Accessible passenger loading zones.

(c) Accessible entrances when not all are accessible (inaccessible entrances shall have directional signage to indicate the route to the nearest accessible entrance).

(d) Accessible toilet and bathing facilities when not all are accessible.

4.1.3 Accessible Buildings: Minimum Requirements.

Accessible buildings and facilities shall be designed and constructed to meet the following minimum requirements:

(1) At least one (1) accessible route complying with section 4.3 shall connect accessible building or facility entrances with all accessible spaces and elements within the building or facility.

(2) All objects that overhang or protrude into circulation paths shall comply with section 4.4.

(3) Ground and floor surfaces along accessible routes and in accessible rooms and spaces shall comply with section 4.5.

(4) Interior and exterior stairs connecting levels that are not connected by an elevator, ramp, or other accessible means of vertical access shall comply with section 4.9.

(5) One (1) passenger elevator complying with section 4.10 shall serve each level, including mezzanines, in all multistory buildings and facilities unless exempted below. If more than one (1) elevator is provided, each full passenger elevator shall comply with section 4.10.

EXCEPTION 1: Elevators are not required in facilities that are less than three (3) stories or that have less than three thousand (3,000) square feet per story unless the building is a shopping center, a shopping mall, or a professional office of a health care provider. The elevator exemption set forth in this paragraph does not obviate or

limit in any way the obligation to comply with the other accessibility requirements established in section 4.1.3. For example, floors above or below the accessible ground floor must meet the requirements of this section, except for elevator service. If toilet or bathing facilities are provided on a level not served by an elevator, then toilet or bathing facilities must be provided on the accessible ground floor. In new construction, if a building or facility is eligible for this exemption but a full passenger elevator is nonetheless planned, that elevator shall meet the requirements of section 4.10 and shall serve each level in the building. A full passenger elevator that provides service from a garage to only one (1) level of a building or facility is not required to serve other levels.

EXCEPTION 2: Elevator pits, elevator penthouses, mechanical rooms, piping or equipment, and catwalks are exempted from this requirement.

EXCEPTION 3: Accessible ramps complying with section 4.8 may be used in lieu of an elevator.

EXCEPTION 4: Platform lifts (wheelchair lifts) complying with section 4.11 of this part may be used in lieu of an elevator only under the following conditions:

(a) To provide an accessible route to a performing area in an assembly occupancy.

(b) To comply with the wheelchair viewing position line-of-sight and dispersion requirements of section 4.33.3.

(c) To provide access to incidental occupiable spaces and rooms which are not open to the general public and which house no more than five (5) persons, including, but not limited to, equipment control rooms and projection booths.

(d) To provide access where existing site constraints or other constraints make use of a ramp or an elevator infeasible.

(6) Reserved.

(7) Doors:

(a) At each accessible entrance to a building or facility, at least one (1) door shall comply with section 4.13.

(b) Within a building or facility, at least one (1) door at each accessible space shall comply with section 4.13.

(c) Each door that is an element of an accessible route shall comply with section 4.13.

(d) Each door required by section 4.3.10, Egress, shall comply with section 4.13.

(8) At a minimum, the requirements in (a) and (b) below shall be satisfied independently:

(a)(i) At least fifty percent (50%) of all public entrances (excluding those in (2)(b) below) must be accessible. At least one (1) must be a ground floor entrance. Public entrances are any entrances that are not loading or service entrances.

(ii) Accessible entrances must be provided in a number at least equivalent to the number of exits required by chapter 10 of this code. (This paragraph does not require an increase in the total number of entrances planned for a facility.)

(iii) An accessible entrance must be provided to each tenancy in a facility, for example, individual stores in a strip shopping center.

One (1) entrance may be considered as meeting more than one (1) of the requirements in (1)(a). Accessible entrances shall be entrances used by the majority of people visiting or working in the building.

(b)(i) In addition, if direct access is provided for pedestrians from an enclosed parking garage to the building, at least one (1) direct entrance from the garage to the building must be accessible.

(ii) If access is provided for pedestrians from a pedestrian tunnel or elevated walkway, one (1) entrance to the building from each tunnel or walkway must be accessible.

One (1) entrance may be considered as meeting more than one (1) of the requirements in (b).

(c) If the only entrance to a building, or tenancy in a facility, is a service entrance, that entrance shall be accessible.

(d) Entrances which are not accessible shall have directional signage complying with sections 4.30.1 and 4.30.5 which indicates the location of the nearest accessible entrance.

(9) In buildings or facilities, or portions of buildings or facilities, required to be accessible, accessible means of egress shall be provided in the same number as required for exits by chapter 10 of this code. Where a required exit from an occupiable level above or below a level of accessible exit discharge is not accessible, an area of rescue assistance shall be provided on each such level (in a number equal to that of inaccessible required exits). Areas of rescue assistance shall comply with section 4.3.11. A horizontal exit, meeting the requirements of chapter 10 of this code,

shall satisfy the requirements for an area of rescue assistance (see section 4.3.11).

EXCEPTION: Areas of rescue assistance are not required in buildings or facilities having a supervised automatic fire suppression system throughout.

(10) Drinking Fountains:

(a) Where only one (1) drinking fountain is provided on a floor, there shall be a drinking fountain which is accessible to individuals who use wheelchairs in accordance with section 4.15 and one (1) accessible to those who have difficulty bending or stooping.

(b) Where more than one (1) drinking fountain or water cooler is provided on a floor, fifty percent (50%) of those provided shall comply with section 4.15 and shall be on an accessible route.

(11) Toilet Facilities: If toilet rooms are provided, then each public and common use toilet room shall comply with section 4.22. Other toilet rooms provided for the use of occupants of specific spaces, such as a private toilet room for the occupant of a private office, shall be adaptable in conformance with CABO/ANSI A117.1 1992 as referenced in Chapter 11 - Part 2. If bathing rooms are provided, then each public and common use bathroom shall comply with section 4.23. Accessible toilet rooms and bathing facilities shall be on an accessible route.

(12) Storage, Shelving, and Display Units:

(a) If fixed or built-in storage facilities, such as cabinets, shelves, closets, and drawers, are provided in accessible spaces, at least one (1) of each type provided shall contain storage space complying with section 4.25. Additional storage may be provided outside of the dimensions required by section 4.25.

(b) Shelves or display units allowing self-service by customers in mercantile occupancies shall be located [*sic., located*] on an accessible route complying with section 4.3. Requirements for accessible reach range do not apply.

(13) Controls and operating mechanisms in accessible spaces, along accessible routes, or as parts of accessible elements, for example, light switches and dispenser controls, shall comply with section 4.27.

(14) If emergency warning systems are provided, then they shall include both audible alarms and visual alarms complying with section 4.28. Sleeping accommodations required to comply with section 9.3 shall have an alarm system complying with 4.28.

(15) Reserved.

(16) Building Signage:

(a) Signs which designate permanent rooms and spaces shall comply with sections 4.30.1, 4.30.4, 4.30.5, and 4.30.6.

(b) Other signs which provide direction to or information about functional spaces of the building shall comply with sections 4.30.1, 4.30.2, 4.30.3, and 4.30.5.

EXCEPTION: Building directories, menus, and all other signs which are temporary are not required to comply.

(17) Public Telephones:

(a) If public pay telephones, public closed circuit telephones, or other public telephones are provided, then they shall comply with sections 4.31.2 through 4.31.8 to the extent required by the following table:

Number of Each Type of Telephone Provided on Each Floor	Number of Telephones Required to Comply With Sections 4.31.2 Through 4.31.8 ¹
1 or more single unit	1 per floor
1 bank ²	1 per floor
2 or more banks ²	1 per bank. Accessible unit may be installed as a single unit in proximity (either visible or with signage) to the bank. At least 1 public telephone per floor shall meet the requirements for a forward reach telephone ³ .

¹Additional public telephones may be installed at any height. Unless otherwise specified, accessible telephones may be either forward or side reach telephones.

²A bank consists of two (2) or more adjacent public telephones, often installed as a unit.

³EXCEPTION: For exterior installations only, if dial tone first service is available, then a side reach telephone may be installed instead of the required forward reach telephone (i.e., one (1) telephone in proximity to each bank shall comply with section 4.31).

(b) All telephones required to be accessible and complying with sections 4.31.2 through 4.31.8 shall be equipped with a volume control. In addition, twenty-five percent (25%), but never less than one (1), of all other public telephones provided shall be equipped with a volume control and shall be dispersed among all types of public telephones, including closed circuit telephones, throughout the building or facility. Signage complying with applicable provisions of section 4.30.7 shall be provided.

(c) The following shall be provided in accordance with 4.31.9:

(i) If a total number of four (4) or more public pay telephones (including both interior and exterior phones) is provided at a site, and at least one (1) is in an interior location, then at least one (1) interior public text telephone shall be provided.

(ii) If an interior public pay telephone is provided in a stadium or arena, in a convention center, in a hotel with a convention center, or in a covered mall, at least one (1) interior public text telephone shall be provided in the facility.

(iii) If a public pay telephone is located in or adjacent to a hospital emergency room, hospital recovery room, or hospital waiting room, one (1) public text telephone shall be provided at each such location.

(d) Where a bank of telephones in the interior of a building consists of three (3) or more public pay telephones, at least one (1) public pay telephone in each such bank shall be equipped with a shelf and outlet in compliance with section 4.31.9(2).

(18) If fixed or built-in seating or tables (including, but not limited to, study carrels and student laboratory stations), are provided in accessible public or common use areas, at least five percent (5%), but not less than one (1), of the fixed or built-in seating areas or tables shall comply with section 4.32. An accessible route shall lead to and through such fixed or built-in seating areas or tables.

(19) Assembly Areas:

(a) Places of assembly with fixed seating accessible wheelchair locations shall comply with sections 4.33.2, 4.33.3, and 4.33.4 and shall be provided consistent with the following table:

Capacity of Seating in Assembly Areas	Number of Required Wheelchair Locations
4 to 25	1
26 to 50	2
51 to 300	4
301 to 500	6
Over 500	6, plus 1 additional space for each total seating capacity increase of 100

In addition, one percent (1%), but not less than one (1), of all fixed seats shall be aisle seats with no armrests

on the aisle side, or removable or folding armrests on the aisle side. Each such seat shall be identified by a sign or marker. Signage notifying patrons of the availability of such seats shall be posted at the ticket office. Aisle seats are not required to comply with section 4.33.4.

(b) This paragraph applies to assembly areas where audible communications are integral to the use of the space (e.g., concert and lecture halls, playhouses and movie theaters, and meeting rooms, etc.). Such assembly areas, if (1) they accommodate at least fifty (50) persons, or if they have audio-amplification systems, and (2) they have fixed seating, shall have a permanently installed assistive listening system complying with section 4.33. For other assembly areas, a permanently installed assistive listening system, or an adequate number of electrical outlets or other supplementary wiring necessary to support a portable assistive listening system shall be provided. The minimum number of receivers to be provided shall be equal to four percent (4%) of the total number of seats, but in no case less than two (2). Signage complying with applicable provisions of section 4.30 shall be installed to notify patrons of the availability of a listening system.

(20) Where automated teller machines (ATMs) are provided, each ATM shall comply with the requirements of section 4.34 except where two (2) or more are provided at a location, then only one (1) must comply.

EXCEPTION: Drive-up-only automated teller machines are not required to comply with sections 4.27.2, 4.27.3, and 4.34.3.

(21) Where dressing and fitting rooms are provided for use by the general public, patients, customers, or employees, five percent (5%), but never less than one (1), of the dressing rooms for each type of use within each cluster of dressing rooms shall be accessible and shall comply with section 4.35. Examples of types of dressing rooms are those serving different genders or distinct and different functions as in different treatment or examination facilities.

4.1.4 Reserved.

4.1.5 Accessible Buildings: Additions. Each addition to an existing building or facility shall be regarded as an alteration. Each space or element added to the existing building or facility shall comply with the applicable provisions of sections 4.1.1 to 4.1.3. Minimum Requirements (for New Construction) and the applicable technical specifications of sections 4.2 through 4.35 and sections 5 through 9.

4.1.6 Reserved.

4.1.7 Reserved.

4.2 Space Allowable and Reach Ranges.

4.2.1 Wheelchair Passage Width. The minimum clear width for single wheelchair passage shall be thirty-two (32) inches (eight hundred fifteen (815) millimeters) at a point and thirty-six (36) inches (nine hundred fifteen (915) millimeters) continuously (see Fig. 1 and 24(e)).

4.2.2 Width for Wheelchair Passing. The minimum width for two (2) wheelchairs to pass is sixty (60) inches (one thousand five hundred twenty-five (1,525) millimeters) (see Fig. 2).

4.2.3 Wheelchair Turning Spaces. The space required for a wheelchair to make a one hundred eighty (180) degree turn is a clear space of sixty (60) inches (one thousand five hundred twenty-five (1,525) millimeters) diameter (see Fig. 3(a)) or a T-shaped space (see Fig. 3(b)).

4.2.4 Clear Floor or Ground Space for Wheelchairs.

4.2.4.1 Size and Approach. The minimum clear floor or ground space required to accommodate a single, stationary wheelchair and occupant is thirty (30) inches by forty-eight (48) inches (seven hundred sixty (760) millimeters by one thousand two hundred twenty (1,220) millimeters) (see Fig. 4(a)). The minimum clear floor or ground space for wheelchairs may be positioned for forward or parallel approach to an object (see Fig. 4(b) and 4(c)). Clear floor or ground space for wheelchairs may be part of the knee space required under some objects.

4.2.4.2 Relationship of Maneuvering Clearance to Wheelchair Spaces. One (1) full unobstructed side of the clear floor or ground space for a wheelchair shall adjoin or overlap an accessible route or adjoin another wheelchair clear floor space. If a clear floor space is located in an alcove or otherwise confined on all or part of three (3) sides, additional maneuvering clearances shall be provided as shown in Fig. 4(d) and 4(e).

4.2.4.3 Surfaces for Wheelchair Spaces. Clear floor or ground spaces for wheelchairs shall comply with section 4.5.

4.2.5 Forward Reach. If the clear floor space only allows forward approach to an object, the maximum high forward reach allowed shall be forty-eight (48) inches (one thousand two hundred twenty (1,220) millimeters) (see Fig. 5(a)). The minimum low forward reach is fifteen (15) inches (three hundred eighty (380) millimeters). If the high forward reach is over an obstruction, reach and clearances shall be as shown in Fig. 5(b).

4.2.6 Side Reach. If the clear floor space allows parallel approach by a person in a wheelchair, the maximum high side reach allowed shall be fifty-four (54) inches (one thousand three hundred seventy (1,370) millimeters) and the low side reach shall be no less than nine (9) inches (two hundred thirty (230) millimeters) above the floor (Fig. 6(a) and 6(b)). If the side reach is over an obstruction, the reach and clearances shall be as shown in Fig. 6(c).

4.3 Accessible Route.

4.3.1 General. All walks, halls, corridors, aisles, sky walks, tunnels, and other spaces that are part of an accessible route shall comply with section 4.3.

4.3.2 Location.

(1) At least one (1) accessible route within the boundary of the site shall be provided from public transportation stops, accessible parking and accessible passenger loading zones, and public streets or sidewalks to the accessible building entrance they serve. The accessible route shall coincide with the route for the general public.

(2) At least one (1) accessible route shall connect accessible buildings, facilities, elements, and spaces that are on the same site.

(3) At least one (1) accessible route shall connect accessible building or facility entrances with all accessible spaces and elements and with all accessible dwelling units within the building or facility.

(4) An accessible route shall connect at least one (1) accessible entrance of each accessible dwelling unit with those exterior and interior spaces and facilities that serve the accessible dwelling unit.

4.3.3 Width. The minimum clear width of an accessible route shall be thirty-six (36) inches (nine hundred fifteen (915) millimeters) except at doors (see sections 4.13.5 and 4.13.6). If a person in a wheelchair must make a turn around an obstruction, the minimum clear width of the accessible route shall be as shown in Fig. 7(a) and 7(b).

4.3.4 Passing Spaces. If an accessible route has less than sixty (60) inches (one thousand five hundred twenty-five (1,525) millimeters) clear width, then passing spaces at least sixty (60) inches by sixty (60) inches (one thousand five hundred twenty-five (1,525) millimeters by one thousand five hundred twenty-five (1,525) millimeters) shall be located at reasonable intervals not to exceed two hundred (200) feet (sixty-one (61) meters). A T-intersection of two (2) corridors or walks is an acceptable passing place.

4.3.5 Head Room. Accessible routes shall comply with section 4.4.2.

4.3.6 Surface Textures. The surface of an accessible route shall comply with section 4.5.

4.3.7 Slope. An accessible route with a running slope greater than 1:20 is a ramp and shall comply with section 4.8. The cross slope of an accessible route shall not exceed 1:50.

4.3.8 Changes in Levels. Changes in levels along an accessible route shall comply with section 4.5.2. If an accessible route has changes in level greater than one-half (½) inch (thirteen (13) millimeters), then a curb ramp, ramp, elevator, or elevator platform lift (as permitted in section 4.1.3) shall be provided that complies with sections [sic., section] 4.7, 4.8, 4.10, or 4.11, respectively. An accessible route does not include stairs, steps, or escalators. See definition of "EGRESS, MEANS OF" in section 3.5.

4.3.9 Doors. Doors along an accessible route shall comply with section 4.13.

4.3.10 Egress. Accessible routes serving any accessible space or element shall also serve as a means of egress for emergencies or connect to an accessible area of rescue assistance.

4.3.11 Areas of Rescue Assistance.

4.3.11.1 Location and Construction. An area of rescue assistance shall be one (1) of the following:

(1) A portion of a stairway landing within a smoke-proof enclosure.

(2) A portion of an exterior exit balcony located immediately adjacent to an exit stairway when the balcony complies with the requirements for exterior exit balconies in chapter 10 of this code. Openings to the interior of the building located within twenty (20) feet (six (6) meters) of the area of rescue assistance shall be protected with fire assemblies having a three-fourths (¾) hour fire protection rating.

(3) A portion of a one (1) hour fire-resistive corridor located immediately adjacent to an exit enclosure.

(4) A vestibule located immediately adjacent to an exit enclosure and constructed to the same fire-resistive standards as required for corridors and openings.

(5) A portion of a stairway landing within an exit enclosure which is vented to the exterior and is separated from the interior of the building with not less than one (1) hour fire-resistive doors.

(6) An area or a room which is separated from other portions of the building by a smoke barrier. Smoke barriers shall have a fire-resistive rating of not less than one (1) hour and shall completely enclose the area or room. Doors in the smoke barrier shall be tight-fitting smoke and draft control assemblies having a fire-protection rating of not less than twenty (20) minutes and shall be self-closing or automatic closing. The area or room shall be provided with an exit directly to an exit enclosure. Where the room or area exits into an exit enclosure, which is required to be more than one (1) hour fire-resistive construction, the room or area shall have the same fire-resistive construction, including the same opening protection, as required for the adjacent exit.

(7) An elevator lobby when elevator shafts and adjacent lobbies are pressurized as required for smokeproof enclosures by chapter 10 of this code and when complying with requirements herein for size, communication, and signage. Such pressurization system shall be activated by smoke detectors on each floor. Pressurization equipment and its duct work within the building shall be separated from other portions of the building by a minimum two (2) hour fire-resistive construction.

(8) The area immediately adjacent to a horizontal exit that affords safety from fire or smoke coming from the area which escape is made.

4.3.11.2 Size. Each area of rescue assistance shall provide at least two (2) accessible areas each being not less than thirty (30) inches by forty-eight (48) inches (seven hundred sixty (760) millimeters by one thousand two hundred twenty (1,220) millimeters). The area of rescue assistance shall not encroach on any required exit width. The total number of such thirty (30) inch by forty-eight (48) inch (seven hundred sixty (760) millimeters by one thousand two hundred twenty [sic.] (1,220) millimeters) areas per story shall be not less than one (1) for every two hundred (200) persons of calculated occupant load served by the area of rescue assistance.

EXCEPTION: The number of thirty (30) inch by forty-eight (48) inch (seven hundred sixty (760) millimeters by one thousand two hundred twenty (1,220) millimeters) areas may be one (1) for each area of rescue assistance on floors where the occupant load is less than two hundred (200).

4.3.11.3 Stairway Width. Each stairway adjacent to an area of rescue assistance shall have a minimum clear width of forty-eight (48) inches between handrails.

4.3.11.4 Two-way Communication. A method of two-way communication, with both visible and audible signals, shall

be provided between each area of rescue assistance and the primary entry.

4.3.11.5 Identification. Each area of rescue assistance shall be identified by a sign which states "AREA OF RESCUE ASSISTANCE" and display the international symbol of accessibility. The sign shall be illuminated when exit sign illumination is required by chapter 10 of this code. Signage shall also be installed at all inaccessible exits and where otherwise necessary to clearly indicate the direction to areas of rescue assistance. In each area of rescue assistance, instructions on the use of the area under emergency conditions shall be posted adjoining the two-way communication system.

4.4 Protruding Objects.

4.4.1 General. Objects projecting from walls, for example, telephones, with their leading edges between twenty-seven (27) inches and eighty (80) inches (six hundred eighty-five (685) millimeters and two thousand thirty (2,030) millimeters) above the finished floor shall protrude no more than four (4) inches (one hundred (100) millimeters) into walks, halls, corridors, passageways, or aisles (see Fig. 8(a)). Objects mounted with their leading edges at or below twenty-seven (27) inches (six hundred eighty-five (685) millimeters) above the finished floor may protrude any amount (see Fig. 8(a) and (b)). Free-standing objects mounted on posts or pylons may overhang twelve (12) inches (three hundred five (305) millimeters) maximum from twenty-seven (27) inches to eighty (80) inches (six hundred eighty-five (685) millimeters to two thousand thirty (2,030) millimeters) above the ground or finished floor (see Fig. 8(c) and 8(d)). Protruding objects shall not reduce the clear width of an accessible route or maneuvering space (see Fig. 8(e)).

4.4.2 Head Room. Walks, halls, corridors, passageways, aisles, or other circulation spaces shall have eighty (80) inches (two thousand thirty (2030) millimeters) minimum clear head room (see Fig. 8(a)). If vertical clearance of an area adjoining an accessible route is reduced to less than eighty (80) inches (nominal dimension), a barrier to warn blind or visually impaired persons shall be provided (see Fig. 8(c-1)).

4.5 Ground and Floor Surfaces.

4.5.1 General. Ground and floor surfaces along accessible routes and in accessible rooms and spaces, including floors, walks, ramps, stairs, and curb ramps, shall be stable, firm, and slip-resistant and shall comply with section 4.5.

4.5.2 Changes in Level. Changes in level up to one-fourth ($\frac{1}{4}$) inch (six (6) millimeters) may be vertical and without

edge treatment (see Fig. 7(c)). Changes in level between one-fourth ($\frac{1}{4}$) inch and one-half ($\frac{1}{2}$) inch (six (6) millimeters and thirteen (13) millimeters) shall be beveled with a slope no greater than 1:2 (see Fig. 7(d)). Changes in level greater than one-half ($\frac{1}{2}$) inch (thirteen (13) millimeters) shall be accomplished by means of a ramp that complies with section 4.7 or 4.8.

4.5.3 Carpet. If carpet or carpet tile is used on a ground or floor surface, then it shall be securely attached; have a firm cushion, pad, or backing, or no cushion or pad; and have a level loop, textured loop, level cut pile, or level cut/uncut pile texture. The maximum pile thickness shall be one-half ($\frac{1}{2}$) inch (thirteen (13) millimeters) (see Fig. 8(f)). Exposed edges of carpet shall be fastened to floor surfaces and have trim along the entire length of the exposed edge. Carpet edge trim shall comply with 4.5.2.

4.5.4 Gratings. If gratings are located in walking surfaces, then they shall have spaces no greater than one-half ($\frac{1}{2}$) inch (thirteen (13) millimeters) wide in one (1) direction (see Fig. 8(g)). If gratings have elongated openings, then they shall be placed so that the long dimension is perpendicular to the dominant direction of travel (see Fig. 8(h)).

4.6 Parking and Passenger Loading Zones.

4.6.1 Parking spaces required to be accessible by 4.1 shall comply with IC 5-16-9.

4.6.2 Reserved.

4.6.3 Reserved.

4.6.4 Reserved.

4.6.5 Vertical Clearance. Provide minimum vertical clearance of one hundred fourteen (114) inches (two thousand eight hundred ninety-five (2,895) millimeters)) at accessible passenger loading zones and along at least one (1) vehicle access route to such areas from site entrance(s) and exit(s).

4.6.6 Passenger Loading Zones. Passenger loading zones shall provide an access aisle at least sixty (60) inches (one thousand five hundred twenty-five (1,525) millimeters) wide and twenty (20) feet (two hundred forty (240) inches) (six thousand one hundred (6,100) millimeters) long adjacent and parallel to the vehicle pull-up space (see Fig. 10). If there are curbs between the access aisle and the vehicle pull-up space, then a curb ramp complying with section 4.7 shall be provided. Vehicle standing spaces and access aisles shall be level with surface slopes not exceeding 1:50 (two percent (2%)) in all directions, and

provide minimum vertical clearance of one hundred fourteen (114) inches (two thousand eight hundred ninety-five (2,895) millimeters) at accessible passenger loading zones and along at least one (1) vehicle access route to such areas from site entrance(s) and exit(s).

4.7 Curb Ramps.

4.7.1 Location. Curb ramps complying with section 4.7 shall be provided wherever an accessible route crosses a curb within the site where a Class 1 building or structure is located.

4.7.2 Slope. Slopes of curb ramps shall comply with section 4.8.2. The slope shall be measured as shown in Fig. 11. Transitions from ramps to walks, gutters, or streets shall be flush and free of abrupt changes. Maximum slopes of adjoining gutters, road surface immediately adjacent to the curb ramp, or accessible route shall not exceed 1:20.

4.7.3 Width. The minimum width of a curb ramp shall be thirty-six (36) inches (nine hundred fifteen (915) millimeters), exclusive of flared sides.

4.7.4 Surface. Surfaces of curb ramps shall comply with section 4.5.

4.7.5 Sides of Curb Ramps. If a curb ramp is located where pedestrians must walk across the ramp, or where it is not protected by handrails or guardrails, it shall have flared sides; the maximum slope of the flare shall be 1:10 (see Fig. 12(a)). Curb ramps with returned curbs may be used where pedestrians would not normally walk across the ramp (see Fig. 12(b)).

4.7.6 Built-up Curb Ramps. Built-up curb ramps shall be located so that they do not project into vehicular traffic lanes (see Fig. 13).

4.7.7 Reserved.

4.7.8 Obstructions. Curb ramps shall be located or protected to prevent their obstruction by parked vehicles.

4.7.9 Location at Marked Crossings. Curb ramps at marked crossings shall be wholly contained within the markings, excluding any flared sides (see Fig. 15).

4.7.10 Diagonal Curb Ramps. If diagonal (or corner type) curb ramps have returned curbs or other well defined edges, such edges shall be parallel to the direction of pedestrian flow. The bottom of diagonal curb ramps shall have forty-eight (48) inches (one thousand two hundred twenty (1,220) millimeters) minimum clear space as show in Fig. 15(c) and (d). If diagonal curb ramps are provided at

marked crossings, the forty-eight (48) inches (one thousand two hundred twenty (1,220) millimeters) clear space shall be within the markings (see Fig. 15(c) and (d)). If diagonal curb ramps have flared sides, they shall also have at least a twenty-four (24) inch (six hundred ten (610) millimeters) long segment of straight curb located on each side of the curb ramp and within the marked crossing (see Fig. 15(c)).

4.7.11 Islands. Any raised islands in crossings on the site where a Class 1 structure is located shall be cut through level with the street or have curb ramps at both sides and a level area at least forty-eight (48) inches (one thousand two hundred twenty (1,220) millimeters) long between the curb ramps in the part of the island intersected by the crossing (see Fig. 15(a) and (b)).

4.8 Ramps.

4.8.1 General. Any part of an accessible route with a slope greater than 1:20 shall be considered a ramp and shall comply with section 4.8.

4.8.2 Slope and Rise. The least possible slope shall be used for any ramp. The maximum slope of a ramp shall be 1:12. The maximum rise for any run shall be thirty (30) inches (seven hundred sixty (760) millimeters) (see Fig. 16).

4.8.3 Clear Width. The minimum clear width of a ramp shall be thirty-six (36) inches (nine hundred fifteen (915) millimeters).

4.8.4 Landings. Ramps shall have level landings at bottom and top of each ramp and each ramp run. Landings shall have the following features:

(1) The landing shall be at least as wide as the ramp run leading to it.

(2) The landing length shall be a minimum of sixty (60) inches (one thousand five hundred twenty-five (1,525) millimeters) clear.

(3) If ramps change direction at landings, the minimum landing size shall be sixty (60) inches by sixty (60) inches (one thousand five hundred twenty-five (1,525) millimeters by one thousand five hundred twenty-five (1,525) millimeters).

(4) If a doorway is located at a landing, then the area in front of the doorway shall comply with section 4.13.6.

4.8.5 Handrails. If a ramp run has a rise greater than six (6) inches (one hundred fifty (150) millimeters) or a horizontal projection greater than seventy-two (72) inches (one thousand eight hundred thirty (1,830) millimeters), then it

shall have handrails on both sides. Handrails are not required on curb ramps or adjacent to seating in assembly areas.

Handrails shall comply with section 4.26 and shall have the following features:

(1) Handrails shall be provided along both sides of ramp segments. The inside handrail on switchback or dogleg ramps shall always be continuous.

(2) If handrails are not continuous, they shall extend at least twelve (12) inches (three hundred five (305) millimeters) beyond the top and bottom of the ramp segment and shall be parallel with the floor or ground surface (see Fig. 17).

(3) The clear space between the handrail and the wall shall be one and one-half (1½) inches (thirty-eight (38) millimeters).

(4) Gripping surfaces shall be continuous.

(5) Top of handrail gripping surfaces shall be mounted between thirty-four (34) inches and thirty-eight (38) inches (eight hundred sixty-five (865) millimeters and nine hundred sixty-five (965) millimeters) above ramp surfaces.

(6) Ends of handrails shall be either rounded or returned smoothly to floor, wall, or post.

(7) Handrails shall not rotate within their fittings.

4.8.6 Cross Slope and Surfaces. The cross slope of ramp surfaces shall be no greater than 1:50. Ramp surfaces shall comply with section 4.5.

4.8.7 Edge Protection. Ramps and landings with drop-offs shall have curbs, walls, railings, or projecting surfaces that prevent people from slipping off the ramp. Curbs shall be a minimum of two (2) inches (fifty (50) millimeters) high (see Fig. 17).

4.8.8 Outdoor Conditions. Outdoor ramps and their approaches shall be designed so that water will not accumulate on walking surfaces.

4.9 Stairs.

4.9.1 Minimum Number. Stairs required to be accessible by section 4.1 shall comply with section 4.9.

4.9.2 Treads and Risers. On any given flight of stairs, all steps shall have uniform riser heights and uniform tread widths. Stair treads shall be no less than eleven (11) inches (two hundred eighty (280) millimeters) wide measured

from riser to riser (see Fig. 18(a)). Open risers are not permitted.

4.9.3 Nosings. The undersides of nosings shall not be abrupt. The radius of curvature at the leading edge of the tread shall be no greater than one-half (½) inch (thirteen (13) millimeters). Risers shall be sloped or the underside of the nosing shall have an angle not less than sixty (60) degrees from the horizontal. Nosings shall project no more than one and one-half (1½) inches (thirty-eight (38) millimeters) (see Fig. 18).

4.9.4 Handrails. Stairways shall have handrails at both sides of all stairs. Handrails shall comply with section 4.26 and shall have the following features:

(1) Handrails shall be continuous along both sides of stairs. The inside handrail on switchback or dogleg stairs shall always be continuous (see Fig. 19(a) and Fig. 19(b)).

(2) If handrails are not continuous, they shall extend at least twelve (12) inches (three hundred five (305) millimeters) beyond the top riser and at least twelve (12) inches (three hundred five (305) millimeters) plus the width of one (1) tread beyond the bottom riser. At the top, the extension shall be parallel with the floor or ground surface. At the bottom, the handrail shall continue to slope for a distance of the width of one (1) tread from the bottom riser; the remainder of the extension shall be horizontal (see Fig. 19(c) and Fig. 19(d)). Handrail extensions shall comply with section 4.4.

(3) The clear space between handrails and wall shall be one and one-half (1½) inches (thirty-eight (38) millimeters).

(4) Gripping surfaces shall be uninterrupted by newel posts, other construction elements, or obstructions.

(5) Top of handrail gripping surfaces shall be mounted between thirty-four (34) inches and thirty-eight (38) inches (eight hundred sixty-five (865) millimeters and nine hundred sixty-five (965) millimeters) above stair nosings.

(6) Ends of handrails shall be either rounded or returned smoothly to floor, wall, or post.

(7) Handrails shall not rotate within their fittings.

4.9.5 Reserved.

4.9.6 Outdoor Conditions. Outdoor stairs and their approaches shall be designed so that water will not accumulate on walking surfaces.

4.10 Elevators.

4.10.1 General. Accessible elevators shall be on an accessible route and shall comply with section 4.10 and with the Indiana Safety Code for Elevators, Escalators, Manlifts, and Hoists (675 IAC 21). Freight elevators shall not be considered as meeting the requirements of this section unless the only elevators provided are used as combination passenger and freight elevators for the public and employees.

4.10.2 Automatic Operation. Elevator operation shall be automatic. Each car shall be equipped with a self-leveling feature that will automatically bring the car to floor landings within a tolerance of one-half (½) inch (thirteen (13) millimeters) under rated loading to zero (0) loading conditions. This self-leveling feature shall be automatic and independent of the operating device and shall correct the overtravel or undertravel.

4.10.3 Hall Call Buttons. Call buttons in elevator lobbies and halls shall be centered at forty-two (42) inches (one thousand sixty-five (1,065) millimeters) above the floor. Such call buttons shall have visual signals to indicate when each call is registered and when each is answered. Call buttons shall be a minimum of three-fourths (¾) inch (nineteen (19) millimeters) in the smallest dimension. The button designating the up direction shall be on top (see Fig. 20). Buttons shall be raised or flush. Objects mounted beneath hall call buttons shall not project into the elevator lobby more than four (4) inches (one hundred (100) millimeters).

4.10.4 Hall Lanterns. A visible and audible signal shall be provided at each hoistway entrance to indicate which car is answering a call. Audible signals shall sound once for the up direction and twice for the down direction or shall have verbal annunciators that say “up” or “down”. Visible signals shall have the following features:

(1) Hall lantern fixtures shall be mounted so that their centerline is at least seventy-two (72) inches (one thousand eight hundred thirty (1,830) millimeters) above the lobby floor (see Fig. 20).

(2) Visual elements shall be at least two and one-half (2½) inches (sixty-four (64) millimeters) in the smallest dimension.

(3) Signals shall be visible from the vicinity of the hall call button (see Fig. 20). In-car lanterns located in cars, visible from the vicinity of hall call buttons, and conforming to the requirements in subsections (1) and (2) above, shall be acceptable.

4.10.5 Raised and Braille Characters on Hoistway Entrances. All elevator hoistway entrances shall have raised and braille floor designations provided on both jambs. The centerline of the characters shall be sixty (60) inches (one thousand five hundred twenty-five (1,525) millimeters) above finish floor. Such characters shall be two (2) inches (fifty (50) millimeters) high and shall comply with section 4.30.4. Permanently applied plates are acceptable if they are permanently fixed to the jambs (see Fig. 20).

4.10.6 Door Protective and Reopening Device. Elevator doors shall open and close automatically. They shall be provided with a reopening device that will stop and reopen a car door and hoistway door automatically if the door becomes obstructed by an object or a person. The device shall be capable of completing these operations without requiring contact for an obstruction passing through the opening at heights of five (5) inches and twenty-nine (29) inches (one hundred twenty-five (125) millimeters and seven hundred thirty-five (735) millimeters) above finish floor (see Fig. 20). Door reopening devices shall remain effective for at least twenty (20) seconds. After such an interval, doors may close in accordance with the requirements of the Indiana Safety Code for Elevators, Escalators, Manlifts, and Hoists (675 IAC 21).

4.10.7 Door and Signal Timing for Hall Calls. The minimum acceptable time from notification that a car is answering a call until the doors of that car start to close shall be calculated from the following equation:

$$T = D/(1.5 \text{ ft/s})$$

or

$$T = D/(457 \text{ mm/s})$$

Where T equals total time in seconds and D equals distance (in feet or millimeters) from a point in the lobby or corridor sixty (60) inches (one thousand five hundred twenty-five (1,525) millimeters) directly in front of the farthest call button controlling that car to the centerline of its hoistway door (see Fig. 21). For cars with in-car lanterns, T begins when the lantern is visible from the vicinity of hall call buttons and an audible signal is sounded. The minimum acceptable notification time shall be five (5) seconds.

4.10.8 Door Delay for Car Calls. The minimum time for elevator doors to remain fully open in response to a car call shall be three (3) seconds.

4.10.9 Floor Plan for Elevator Cars. The floor area of elevator cars shall provide space for wheelchair users to enter the car, maneuver within reach of controls, and exit from the car. Door openings and inside dimensions shall be as shown in Fig. 22. The clearance between the car platform sill and the edge of any hoistway landing shall be

not greater than one and one-fourth (1¼) inches (thirty-two (32) millimeters).

4.10.10 Floor Surfaces. Floor surfaces shall comply with section 4.5.

4.10.11 Illumination Levels. The level of illumination at the car controls, platform, and car threshold and landing sill shall be at least five (5) foot-candles (fifty-three and eight-tenths (53.8) lux).

4.10.12 Car Controls. Elevator control panels shall have the following features:

(1) Buttons. All control buttons shall be at least three-fourths (¾) inch (nineteen (19) millimeters) in their least dimension. They shall be raised or flush.

(2) Tactile, Braille, and Visual Control Indicators. All control buttons shall be designated by braille and by raised standard alphabet characters for letter, arabic characters for numerals, or standard symbols as shown in Fig. 23(a), and as required by the Indiana Safety Code for Elevators, Escalators, Manlifts, and Hoists (675 IAC 21). Raised and braille characters and symbols shall comply with section 4.30. The call button for the main entry floor shall be designated by a raised star at the left of the floor designation (see Fig. 23(a)). All raised designations for control buttons shall be placed immediately to the left of the button to which they apply. Applied plates, permanently attached, are an acceptable means to provide raised control designations. Floor buttons shall be provided with visual indicators to show when each call is registered. The visual indicators shall be extinguished when each call is answered.

(3) Height. All floor buttons shall be no higher than fifty-four (54) inches (one thousand three hundred seventy (1,370) millimeters) above the finish floor for side approach and forty-eight (48) inches (one thousand two hundred twenty (1,220) millimeters) for front approach. Emergency controls, including the emergency alarm and emergency stop, shall be grouped at the bottom of the panel and shall have their centerlines no less than thirty-five (35) inches (eight hundred ninety (890) millimeters) above the finish floor (see Fig. 23(a) and Fig. 23(b)).

(4) Location. Controls shall be located on a front wall if cars have center opening doors, and at the side wall or at the front wall next to the door if cars have side opening doors (see Fig. 23(c) and Fig. 23(d)).

4.10.13 Car Position Indicators. In elevator cars, a visual position indicator shall be provided above the car control

panel or over the door to show the position of the elevator in the hoistway. As the car passes or stops at a floor served by the elevators, the corresponding numerals shall illuminate, and an audible signal shall sound. Numerals shall be a minimum of one-half (½) inch (thirteen (13) millimeters) high. The audible signal shall be no less than twenty (20) decibels with a frequency no higher than one thousand five hundred (1,500) Hertz. An automatic verbal announcement of the floor number at which a car stops or which a car passes may be substituted for the audible signal.

4.10.14 Emergency Communications. If provided, emergency two-way communication systems between the elevator and a point outside the hoistway shall comply with the Indiana Safety Code for Elevators, Escalators, Manlifts, and Hoists (675 IAC 21). The highest operable part of a two-way communication system shall be a maximum of forty-eight (48) inches (one thousand two hundred twenty (1,220) millimeters) from the floor of the car. It shall be identified by a raised symbol and lettering complying with section 4.30 and located adjacent to the device. If the system uses a handset, then the length of the cord from the panel to the handset shall be at least twenty-nine (29) inches (seven hundred thirty-five (735) millimeters). If the system is located in a closed compartment, the compartment door hardware shall conform to section 4.27. The emergency intercommunication system shall not require voice communication.

4.11 Platform Lifts (Wheelchair Lifts).

4.11.1 Location. Platform lifts (wheelchair lifts) permitted by section 4.1 shall comply with the requirements of section 4.11.

4.11.2 Requirements. If platform lifts (wheelchair lifts) are used, they shall comply with sections 4.2.4, 4.5, 4.27, and 4.30, and the Indiana Safety Code for Elevators, Escalators, Manlifts, and Hoists (675 IAC 21).

4.11.3 Entrance. If platform lifts are used, they shall facilitate unassisted entry, operation, and exit from the lift in compliance with section 4.11.2.

4.12 Reserved.

4.13 Doors.

4.13.1 General. Doors required to be accessible by section 4.1 shall comply with the requirements of section 4.13.

4.13.2 Revolving Doors and Turnstiles. Revolving doors or turnstiles shall not be the only means of passage at an accessible entrance or along an accessible route. An

accessible gate or door shall be provided adjacent to the turnstile or revolving door and shall be so designed as to facilitate the same use pattern.

4.13.3 Gates. Gates, including ticket gates, shall meet all applicable specifications of 4.13.

4.13.4 Double-Leaf Doorways. If doorways have two (2) independently operated door leaves, then at least one (1) leaf shall meet the specifications in sections 4.13.5 and 4.13.6. That leaf shall be an active leaf.

4.13.5 Clear Width. Doorways shall have a minimum clear opening of thirty-two (32) inches (eight hundred fifteen (815) millimeters) with the door open ninety (90) degrees, measured between the face of the door and the opposite stop (see Fig. 24(a), Fig. 24(b), Fig. 24(c), and Fig. 24(d)). Openings more than twenty-four (24) inches (six hundred ten (610) millimeters) in depth shall comply with sections 4.2.1 and 4.3.3 (see Fig. 24(e)).

EXCEPTION: Doors not requiring full user passage, such as shallow closets, may have the clear opening reduced to twenty (20) inches (five hundred ten (510) millimeters) minimum.

4.13.6 Maneuvering Clearances at Doors. Minimum maneuvering clearances at doors that are not automatic or power-assisted shall be as shown in Fig. 25. The floor or ground area within the required clearances shall be level and clear.

EXCEPTION: Entry doors to acute care hospital bedrooms for in-patients shall be exempted from the requirement for space at the latch side of the door (see dimension “x” in Fig. 25) if the door is at least forty-four (44) inches (one thousand one hundred twenty (1,120) millimeters) wide.

4.13.7 Two Doors in Series. The minimum space between two (2) hinged or pivoted doors in series shall be forty-eight (48) inches (one thousand two hundred twenty (1,220) millimeters) plus the width of any door swinging into the space. Doors in series shall swing either in the same direction or away from the space between the doors (see Fig. 26).

4.13.8 Thresholds at Doorways. Thresholds at doorways shall not exceed three-fourths ($\frac{3}{4}$) inch (nineteen (19) millimeters) in height for exterior sliding doors or one-half ($\frac{1}{2}$) inch (thirteen (13) millimeters) for other types of doors. Raised thresholds and floor level changes at accessible doorways shall be beveled with a slope no greater than 1:2 (see section 4.5.2).

4.13.9 Door Hardware. Handles, pulls, latches, locks, and other operating devices on accessible doors shall have a shape that is easy to grasp with one (1) hand and does not require tight grasping, tight pinching, or twisting of the wrist to operate. Lever-operated mechanisms, push-type mechanisms, and u-shaped handles are acceptable designs. When sliding doors are fully open, operating hardware shall be exposed and usable from both sides. Hardware required for accessible door passage shall be mounted no higher than forty-eight (48) inches (one thousand two hundred twenty (1,220) millimeters) above finished floor.

4.13.10 Door Closers. If a door has a closer, then the sweep period of the closer shall be adjusted so that from an open position of seventy (70) degrees, the door will take at least three (3) seconds to move to a point three (3) inches (seventy-five (75) millimeters) from the latch, measured to the leading edge of the door.

4.13.11 Door Opening Force. The maximum force for pushing or pulling open a door shall be as follows:

Interior hinged doors 5 lbf (22.2N)
Sliding or folding door 5 lbf (22.2N)

EXCEPTION: Door assemblies used in wall assemblies to retard the passage of fire.

These forces do not apply to the force required to retract latch bolts or disengage other devices that may hold the door in a closed position.

4.13.12 Automatic Doors and Power-Assisted Doors. If an automatic door is used, then it shall comply with the UBC Standard No. 10-1 (675 IAC 13-2.3). Slowly opening, low powered, automatic doors shall comply with the UBC Standard No. 10-1 (675 IAC 13-2.3). Such doors shall not open to back check faster than three (3) seconds and shall require no more than fifteen (15) lbf (sixty-six and six-tenths (66.6) N) to stop door movement. If a power-assisted door is used, its door-opening force shall comply with section 4.13.11 and its closing shall conform to the requirements in the UBC Standard No. 10-1 (675 IAC 13-2.3).

4.14 Entrances.

4.14.1 Minimum Number. Entrances required to be accessible by section 4.1 shall be part of an accessible route complying with section 4.3. Such entrances shall be connected by an accessible route to public transportation stops, accessible parking and passenger loading zones, and public streets or sidewalks if available within the site where the Class 1 structure is located (see section 4.3.2(1)). They shall also be connected by an accessible route to all

accessible spaces or elements within the building or facility.

4.14.2 Service Entrances. A service entrance shall not be the sole accessible entrance unless it is the only entrance to a building or facility, for example, in a factory or garage.

4.15 Drinking Fountains and Water Coolers.

4.15.1 Minimum Number. Drinking fountains or water coolers required to be accessible by section 4.1 shall comply with section 4.15.

4.15.2 Spout Height. Spouts shall be not higher than thirty-six (36) inches (nine hundred fifteen (915) millimeters), measured from the floor or ground surfaces to the spout outlet (see Fig. 27(a)).

4.15.3 Spout Location. The spouts of drinking fountains and water coolers shall be at the front of the unit and shall direct the water flow in a trajectory that is parallel or nearly parallel to the front of the unit. The spout shall provide a flow of water at least four (4) inches (one hundred (100) millimeters) high so as to allow the intersection of a cup or glass under the flow of water. On an accessible drinking fountain with a round or oval bowl, the spout must be positioned so the flow of water is within three (3) inches (seventy-five (75) millimeters) of the front edge of the fountain.

4.15.4 Controls. Unit controls shall be front-mounted or side-mounted near the front edge, and comply with section 4.27.4.

4.15.5 Clearances.

(1) Wall and post-mounted cantilevered units shall have a clear knee space between the bottom of the apron and the floor or ground at least twenty-seven (27) inches (six hundred eighty-five (685) millimeters) high, thirty (30) inches (seven hundred sixty (760) millimeters) wide, and seventeen (17) inches to nineteen (19) inches (four hundred thirty (430) millimeters to four hundred eighty-five (485) millimeters) deep (see Fig. 27(a) and Fig. 27(b)). Such units shall also have a minimum clear floor space thirty (30) inches by forty-eight (48) inches (seven hundred sixty (760) millimeters by one thousand two hundred twenty (1,220) millimeters) to allow a person in a wheelchair to approach the unit facing forward.

(2) Free-standing or built-in units not having a clear space under them shall have a clear floor space at least thirty (30) inches by forty-eight (48) inches (seven hundred sixty (760) millimeters by one thousand two hundred twenty (1,220) millimeters) that allows a person in a

wheelchair to make a parallel approach to the unit (see Fig. 27(c) and Fig. 27(d)). This clear floor space shall comply with section 4.2.4.

4.16 Water Closets.

4.16.1 General. Accessible water closets shall comply with section 4.16.

4.16.2 Clear Floor Space. Clear floor space for water closets not in stalls shall comply with Fig. 28. Clear floor space may be arranged to allow either a left-handed or right-handed approach.

4.16.3 Height. The height of water closets shall be seventeen (17) inches to nineteen (19) inches (four hundred thirty (430) millimeters to four hundred eighty-five (485) millimeters), measured to the top of the toilet seat (see Fig. 29(b)). Seats shall not be sprung to return to a lifted position.

4.16.4 Grab Bars. Grab bars for water closets not located in stalls shall comply with section 4.26 and Fig. 29. The grab bar behind the water closet shall be thirty-six (36) inches (nine hundred fifteen (915) millimeters) minimum.

4.16.5 Flush Controls. Flush controls shall be hand-operated or automatic and shall comply with section 4.27.4. Controls for flush valves shall be mounted on the wide side of toilet areas no more than forty-four (44) inches (one thousand one hundred twenty (1,120) millimeters) above the floor.

4.17 Toilet Stalls.

4.17.1 Location. Accessible toilet stalls shall be on an accessible route and shall meet the requirements of section 4.17.

4.17.2 Water closets. Water closets in accessible stalls shall comply with section 4.16.

4.17.3 Size and Arrangement. The size and arrangement of the standard toilet stall shall comply with Fig. 30(a), Standard Stall. Standard toilet stalls with a minimum depth of fifty-six (56) inches (one thousand four hundred twenty (1,420) millimeters) (see Fig. 30(a)) shall have wall-mounted water closets. If the depth of a standard toilet stall is increased at least three (3) inches (seventy-five (75) millimeters), then a floor-mounted water closet may be used. Arrangements shown for standard toilet stalls may be reversed to allow either a left-hand or right-hand approach. Additional stalls shall be provided in conformance with section 4.22.4.

4.17.4 Toe Clearances. In standard stalls, the front partition and at least one (1) side partition shall provide a toe clearance of at least nine (9) inches (two hundred thirty (230) millimeters) above the floor. If the depth of the stall is greater than sixty (60) inches (one thousand five hundred twenty-five (1,525) millimeters), then the toe clearance is not required.

4.17.5 Doors. Toilet stall doors, including door hardware, shall comply with section 4.13. If the toilet stall approach is from the latch side of the stall door, clearance between the door side of the stall and any obstruction may be reduced to a minimum of forty-two (42) inches (one thousand sixty-five (1,065) millimeters) (Fig. 30).

4.17.6 Grab Bars. Grab bars complying with the length and positioning shown in Fig. 30(a), Fig. 30(b), and Fig. 30(c) shall be provided. Grab bars may be mounted with any desired method as long as they have a gripping surface at the locations shown and do not obstruct the required clear floor area. Grab bars shall comply with section 4.26.

4.18 Urinals.

4.18.1 General. Accessible urinals shall comply with section 4.18.

4.18.2 Height. Urinals shall be stall-type or wall-hung with an elongated rim at a maximum of seventeen (17) inches (four hundred thirty (430) millimeters) above the finish floor.

4.18.3 Clear Floor Space. A clear floor space thirty (30) inches by forty-eight (48) inches (seven hundred sixty (760) millimeters by one thousand two hundred twenty (1,220) millimeters) shall be provided in front of urinals to allow forward approach. This clear space shall adjoin or overlap an accessible route and shall comply with section 4.2.4. Urinal shields that do not extend beyond the front edge of the urinal rim may be provided with twenty-nine (29) inches (seven hundred thirty-five (735) millimeters) clearance between them.

4.18.4 Flush Controls. Flush controls shall be hand-operated or automatic, and comply with section 4.27.4 and be mounted no more than forty-four (44) inches (one thousand one hundred twenty (1,120) millimeters) above the finish floor.

4.19 Lavatories and Mirrors.

4.19.1 General. The requirements of section 4.19 shall apply to lavatory fixtures, vanities, mirrors, and built-in lavatories.

4.19.2 Height and Clearances. Lavatories shall be mounted with the rim or counter surface no higher than thirty-four (34) inches (eight hundred sixty-five (865) millimeters) above the finish floor and provide a clearance of at least twenty-nine (29) inches (seven hundred thirty-five (735) millimeters) above the finish floor to the bottom of the apron. Knee and toe clearance shall comply with Fig. 31.

4.19.3 Clear Floor Space. A clear floor space thirty (30) inches by forty-eight (48) inches (seven hundred sixty (760) millimeters by one thousand two hundred twenty (1,220) millimeters) complying with section 4.2.4 shall be provided in front of a lavatory to allow forward approach. Such clear floor space shall adjoin or overlap an accessible route and shall extend a maximum of nineteen (19) inches (four hundred eighty-five (485) millimeters) underneath the lavatory (see Fig. 32).

4.19.4 Exposed Pipes and Surfaces. Hot water and drain pipes under lavatories shall be insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under lavatories.

4.19.5 Faucets. Faucets shall comply with section 4.27.4. Lever-operated, push-type, and electronically controlled mechanisms are examples of acceptable designs. If self-closing valves are used the faucet shall remain open for at least ten (10) seconds.

4.19.6 Mirrors. Mirrors shall be mounted with the bottom edge of the reflecting surface no higher than forty (40) inches (one thousand fifteen (1,015) millimeters) above the finish floor (see Fig. 31).

4.20 Bathtubs.

4.20.1 General. Accessible bathtubs shall comply with section 4.20.

4.20.2 Floor Space. Clear floor space in front of bathtubs shall be as shown in Fig. 33.

4.20.3 Seat. An in-tub seat or a seat at the head end of the tub shall be provided as shown in Fig. 33 and Fig. 34. The structural strength of seats and their attachments shall comply with section 4.26.3. Seats shall be mounted securely and shall not slip during use.

4.20.4 Grab Bars. Grab bars complying with section 4.26 shall be provided as shown in Fig. 33 and Fig. 34.

4.20.5 Controls. Faucets and other controls complying with section 4.27.4 shall be located as shown in Fig. 34.

4.20.6 Shower Unit. A shower spray unit with a hose at least sixty (60) inches (one thousand five hundred twenty-five (1,525) millimeters) long that can be used both as a fixed shower head and as a hand-held shower shall be provided.

4.20.7 Bathtub Enclosures. If provided, enclosures for bathtubs shall not obstruct controls or transfer from wheelchairs onto bathtub seats or into tubs. Enclosures on bathtubs shall not have tracks mounted on their rims.

4.21 Shower Stalls.

4.21.1 General. Accessible shower stalls shall comply with section 4.21.

4.21.2 Size and Clearance. Except as specified in section 9.1.2, shower stall size and clear floor space shall comply with Fig. 35(a) or 35(b). The shower stall in Fig. 35(a) shall be thirty-six (36) inches by thirty-six (36) inches (nine hundred fifteen (915) millimeters by nine hundred fifteen (915) millimeters). Shower stalls required by section 9.1.2 shall comply with Fig. 57(a) or 57(b). The shower stall in Fig. 35(b) will fit into the space required for a bathtub.

4.21.3 Seat. A seat shall be provided in shower stalls thirty-six (36) inches by thirty-six (36) inches (nine hundred fifteen (915) millimeters by nine hundred fifteen (915) millimeters) and shall be as shown in Fig. 36. The seat shall be mounted seventeen (17) inches to nineteen (19) inches (four hundred thirty (430) millimeters to four hundred eighty-five (485) millimeters) from the bathroom floor and shall extend the full depth of the stall. In a thirty-six (36) inch by thirty-six (36) inch (nine hundred fifteen (915) millimeters by nine hundred fifteen (915) millimeters) shower stall, the seat shall be on the wall opposite the controls. Where a fixed seat is provided in a thirty (30) inch by sixty (60) inch minimum (seven hundred sixty (760) millimeters by one thousand five hundred twenty-five (1,525) millimeters) shower stall, it shall be a folding type and shall be mounted on the wall adjacent to the controls as show in Fig. 57. The structural strength of seats and their attachments shall comply with section 4.26.3.

4.21.4 Grab Bars. Grab bars complying with section 4.26 shall be provided as shown in Fig. 37.

4.21.5 Controls. Faucets and other controls complying with section 4.27.4 shall be located as shown in Fig. 37. In shower stalls thirty-six (36) inches by thirty-six (36) inches (nine hundred fifteen (915) millimeters by nine hundred fifteen (915) millimeters), all controls, faucets, and the shower unit shall be mounted on the side wall opposite the seat.

4.21.6 Shower Unit. A shower spray unit with a hose at least sixty (60) inches (one thousand five hundred twenty-five (1,525) millimeters) long that can be used both as a fixed shower head and as a hand-held shower shall be provided.

EXCEPTION: In unmonitored facilities where vandalism is a consideration, a fixed shower head mounted at forty-eight (48) inches (one thousand two hundred twenty (1,220) millimeters) above the shower floor may be used in lieu of a hand-held shower head.

4.21.7 Curbs. If provided, curbs in shower stalls thirty-six (36) inches by thirty-six (36) inches (nine hundred fifteen (915) millimeters by nine hundred fifteen (915) millimeters) shall be no higher than one-half (½) inch (thirteen (13) millimeters). Shower stalls that are thirty (30) inches by sixty (60) inches (seven hundred sixty (760) millimeters by one thousand five hundred twenty-five (1,525) millimeters) minimum shall not have curbs.

4.21.8 Shower Enclosures. If provided, enclosures for shower stalls shall not obstruct controls or transfer from wheelchairs onto shower seats.

4.22 Toilet Rooms.

4.22.1 Minimum Number. Toilet facilities required to be accessible by section 4.1 shall comply with section 4.22. Accessible toilet rooms shall be on an accessible route.

4.22.2 Doors. All doors to accessible toilet rooms shall comply with section 4.13. Doors shall not swing into the clear floor space required for any fixture.

4.22.3 Clear Floor Space. The accessible fixtures and controls required in sections 4.22.4, 4.22.5, 4.22.6, and 4.22.7 shall be on an accessible route. An unobstructed turning space complying with section 4.2.3 shall be provided within an accessible toilet room. The clear floor space at fixtures and controls, the accessible route, and the turning space may overlap.

4.22.4 Water Closets. If toilet stalls are provided, then at least one (1) shall be a standard toilet stall complying with section 4.17; where six (6) or more stalls are provided, in addition to the stall complying with section 4.17.3, at least one (1) stall thirty-six (36) inches (nine hundred fifteen (915) millimeters) wide with an outward swinging, self-closing door and parallel grab bars complying with Fig. 30(d) and section 4.26 shall be provided. Water closets in such stalls shall comply with section 4.16. If water closets are not in stalls, then at least one (1) shall comply with section 4.16.

4.22.5 Urinals. If urinals are provided, then at least one (1) shall comply with section 4.18.

4.22.6 Lavatories and Mirrors. If lavatories and mirrors are provided, then at least one (1) shall comply with section 4.19.

4.22.7 Controls and Dispensers. If controls, dispensers, receptacles, or other equipment are provided, then at least one (1) of each shall be on an accessible route and shall comply with section 4.27.

4.23 Bathrooms, Bathing Facilities, and Shower Rooms.

4.23.1 Minimum Number. Bathrooms, bathing facilities, or shower rooms required to be accessible by section 4.1 shall comply with section 4.23 and shall be on an accessible route.

4.23.2 Doors. Doors to accessible bathrooms shall comply with section 4.13. Doors shall not swing into the floor space required for any fixture.

4.23.3 Clear Floor Space. The accessible fixtures required in sections 4.23.4, 4.23.7, 4.23.8, and 4.23.9 shall be on an accessible route. An unobstructed turning space complying with section 4.2.3 shall be provided within an accessible bathroom. The clear floor spaces at fixtures and controls, the accessible route, and the turning space may overlap.

4.23.4 Water Closets. If toilet stalls are provided, then at least one (1) shall be a standard toilet stall complying with section 4.17; where six (6) or more stalls are provided, in addition to the stall complying with section 4.17.3, at least one (1) stall thirty-six inches (nine hundred fifteen (915) millimeters) wide with an outward swinging, self-closing door and parallel grab bars complying with Fig. 30(d) and section 4.26 shall be provided. Water closets in such stalls shall comply with section 4.16. If water closets are not in stalls, then at least one (1) shall comply with section 4.16.

4.23.5 Urinals. If urinals are provided, then at least one (1) shall comply with section 4.18.

4.23.6 Lavatories. If lavatories are provided, then at least one (1) shall comply with section 4.19.

4.23.7 Controls and dispensers. If controls, dispensers, receptacles, or other equipment are provided, then at least one (1) of each shall be on an accessible route and shall comply with section 4.27.

4.23.8 Bathing and Shower Facilities. If tubs or showers are provided, then at least one (1) accessible tub that complies

with section 4.20 or at least one (1) accessible shower that complies with 4.21 shall be provided.

4.23.9 Medicine Cabinets. If medicine cabinets are provided, at least one (1) shall be located with a usable shelf no higher than forty-four (44) inches (one thousand one hundred twenty (1,120) millimeters) above the floor space. The floor space shall comply with 4.2.4.

4.24 Sinks.

4.24.1 General. Sinks required to be accessible by section 4.1 shall comply with section 4.24.

4.24.2 Height. Sinks shall be mounted with the counter or rim no higher than thirty-four (34) inches (eight hundred sixty-five (865) millimeters) above the finish floor.

4.24.3 Knee Clearance. Knee clearance that is at least twenty-seven (27) inches (six hundred eighty-five (685) millimeters) high, thirty (30) inches (seven hundred sixty (760) millimeters) wide, and nineteen (19) inches (four hundred eighty-five (485) millimeters) deep shall be provided underneath sinks.

4.24.4 Depth. Each sink shall be a maximum of six and one-half (6½) inches (one hundred sixty-five (165) millimeters) deep.

4.24.5 Clear Floor Space. A clear floor space at least thirty (30) inches by forty-eight (48) inches (seven hundred sixty (760) millimeters by one thousand two hundred twenty (1,220) millimeters) complying with section 4.2.4 shall be provided in front of a sink to allow forward approach. The clear floor space shall be on an accessible route and shall extend a maximum of nineteen (19) inches (four hundred eighty-five (485) millimeters) underneath the sink (see Fig. 32).

4.24.6 Exposed Pipes and Surfaces. Hot water and drain pipes exposed under sinks shall be insulated or otherwise configured so as to protect against contact. There shall be no sharp or abrasive surfaces under sinks.

4.24.7 Faucets. Faucets shall comply with section 4.27.4. Lever-operated, push-type, touch-type, or electronically controlled mechanisms are acceptable designs.

4.25 Storage.

4.25.1 General. Fixed storage facilities such as cabinets, shelves, closets, and drawers required to be accessible by section 4.1 shall comply with section 4.25.

4.25.2 Clear Floor Space. A clear floor space at least thirty (30) inches by forty-eight (48) inches (seven hundred sixty (760) millimeters by one thousand two hundred twenty

(1,220) millimeters) complying with section 4.2.4 that allows either a forward or parallel approach by a person using a wheelchair shall be provided at accessible storage facilities.

4.25.3 Height. Accessible storage spaces shall be within at least one (1) of the reach ranges specified in sections 4.2.5 and 4.2.6 (see Fig. 5 and Fig. 6). Clothes rod shelves shall be a maximum of fifty-four (54) inches (one thousand three hundred seventy (1,370) millimeters) above the finish floor for a side approach. Where the distance from the wheelchair to the clothes rod or shelf exceeds ten (10) inches (two hundred fifty-five (255) millimeters) (as in closets without accessible doors) the height and depth to the rod or shelf shall comply with Fig. 38(a) and Fig. 38(b).

4.25.4 Hardware. Hardware for accessible storage facilities shall comply with section 4.27.4. Touch latches and U-shaped pulls are acceptable.

4.26 Handrails, Grab Bars, and Tub and Shower Seats.

4.26.1 General. All handrails, grab bars, and tub and shower seats required to be accessible by sections [sic., section] 4.1, 4.8, 4.9, 4.16, 4.17, 4.20, or 4.21 shall comply with section 4.26.

4.26.2 Size and Spacing of Grab Bars and Handrails. The diameter or width of the gripping surfaces of a handrail or grab bar shall be one and one-fourth (1¼) inches to one and one-half (1½) inches (thirty-two (32) millimeters to thirty-eight (38) millimeters), or the shape shall provide an equivalent gripping surface. If handrails or grab bars are mounted adjacent to a wall, the space between the wall and the grab bar shall be one and one-half (1½) inches (thirty-eight (38) millimeters) (see Fig. 39(a), Fig. 39(b), Fig. 39(c), and Fig. 39(e)). Handrails may be located in a recess if the recess is a maximum of three (3) inches (seventy-five (75) millimeters) deep and extends at least eighteen (18) inches (four hundred fifty-five (455) millimeters) above the top of the rail (see Fig. 39(d)).

4.26.3 Structural Strength. The structural strength of grab bars, tub and shower seats, fasteners, and mounting devices shall meet the following specifications:

- (1) Bending stress in a grab bar or seat induced by the maximum bending moment from the application of two hundred fifty (250) lbf (one thousand one hundred twelve (1,112) N) shall be less than the allowable stress for the material of the grab bar or seat.
- (2) Shear stress induced in a grab bar or seat by the application of two hundred fifty (250) lbf (one thousand one hundred twelve (1,112) N) shall be less

than the allowable shear stress for the material of the grab bar or seat. If the connection between the grab bar or seat and its mounting bracket or other support is considered to be fully restrained, then direct and torsional shear stress shall be totaled for the combined shear stress, which shall not exceed the allowable shear stress.

- (3) Shear forced induced in a fastener or mounting device from the application of two hundred fifty (250) lbf (one thousand one hundred twelve (1,112) N) shall be less than the allowable lateral load of either the fastener or mounting device or the supporting structure, whichever is the smaller allowable load.

- (4) Tensile force induced in a fastener by a direct tension force of two hundred fifty (250) lbf (one thousand one hundred twelve (1,112) N) plus the maximum moment from the application of two hundred fifty (250) lbf (one thousand one hundred twelve (1,112) N) shall be less than the allowable withdrawal load between the fastener and the supporting structure.

- (5) Grab bars shall not rotate within their fittings.

4.26.4 Eliminating Hazards. A handrail or grab bar shall be free of any sharp or abrasive elements. Edges shall have a minimum radius of one-eighth (1/8) inch (three and two-tenths (3.2) millimeters).

4.27 Controls and Operating Mechanisms.

4.27.1 General. Controls and operating mechanisms required to be accessible by section 4.1 shall comply with section 4.27.

4.27.2 Clear Floor Space. Clear floor space complying with section 4.2.4 that allows a forward or a parallel approach by a person using a wheelchair shall be provided at controls, dispensers, receptacles, and other operable equipment.

4.27.3 Height. The highest operable part of controls, dispensers, receptacles, and other operable equipment shall be placed within at least one (1) of the reach ranges specified in sections 4.2.5 and 4.2.6. Electrical and communications system receptacles on walls shall be mounted no less than fifteen (15) inches (three hundred eighty (380) millimeters) above the floor.

EXCEPTION: These requirements do not apply where the use of special equipment dictates otherwise or where electrical and communications systems receptacles are not normally intended for use by building occupants.

4.27.4 Operation. Controls and operating mechanisms shall be operable with one (1) hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate controls shall be no greater than five (5) lbf (twenty-two and two-tenths (22.2) N).

4.28 Alarms.

4.28.1 General. Alarm systems, if provided, that are required to be accessible by section 4.1 shall comply with section 4.28. At a minimum, visual signal appliances shall be provided in buildings and facilities in each of the following areas:

- (1) Rest rooms.
- (2) Any other general usage areas, such as:
 - (A) meeting rooms;
 - (B) hallways;
 - (C) lobbies; and
 - (D) any other area for common use.

4.28.2 Audible Alarms. If provided, audible emergency alarms shall produce a sound that exceeds the prevailing equivalent sound level in the room or space by at least fifteen (15) dbA or exceeds any maximum sound level with a duration of sixty (60) seconds by five (5) dbA, whichever is louder. Sound levels for alarm signals shall not exceed one hundred twenty (120) dbA.

4.28.3 Visual Alarms. Visual alarm signal appliances shall be integrated into the building or facility alarm system. If single station audible alarms are provided, then single station visual alarm signals shall be provided. Visual alarm signals shall have the following minimum photometric and location features:

- (1) The lamp shall be a xenon strobe type or equivalent.
- (2) The color shall be clear or nominal white (i.e., unfiltered or clear filtered white light).
- (3) The maximum pulse duration shall be two-tenths (0.2) of one (1) second with a maximum duty cycle of forty percent (40%). The pulse duration is defined as the time interval between initial and final points of ten percent (10%) of maximum signal.
- (4) The intensity shall be a minimum of seventy-five (75) candela.
- (5) The flash rate shall be a minimum of one (1) hertz and maximum of three (3) hertz.

(6) The appliance shall be placed eighty (80) inches (two thousand thirty (2,030) millimeters) above the highest floor level within the space or six (6) inches (one hundred fifty-two (152) millimeters) below the ceiling, whichever is lower.

(7) In general, no place in any room or space required to have a visual signal appliance shall be more than fifty (50) feet (fifteen (15) meters) from the signal (in the horizontal plane). In large rooms and spaces exceeding one hundred (100) feet (thirty (30) meters) across, without obstructions six (6) feet (two (2) meters) above the finish floor, such as auditoriums, devices may be placed around the perimeter, spaced a maximum one hundred (100) feet (thirty (30) meters) apart, in lieu of suspending appliances from the ceiling.

(8) No place in common corridors or hallways in which visual alarm signalling appliances are required shall be more than fifty (50) feet (fifteen (15) meters) from the signal.

4.28.4 Auxiliary Alarms. Dwelling units and sleeping accommodations shall have a visual alarm connected to the building emergency alarm system or shall have a standard one hundred ten (110) volt electrical receptacle into which such an alarm can be connected and a means by which a signal from the building emergency alarm system can trigger such an auxiliary alarm. When visual alarms are in place, the signal shall be visible in all areas of the unit or room. Instructions for use of the auxiliary alarm or receptacle shall be provided.

4.29 Reserved.

4.30 Signage.

4.30.1 General. Signage required to be accessible by section 4.1 shall comply with the applicable provisions of section 4.30.

4.30.2 Character Proportion. Letters and numbers on signs shall have a width-to-height ratio between 3:5 and 1:1 and a stroke-width-to-height ratio between 1:5 and 1:10.

4.30.3 Character Height. Characters and numbers on signs shall be sized according to the viewing distance from which they are to be read. The minimum height is measured using an uppercase X. Lowercase characters are permitted.

Height Above Finished Floor	Minimum Character Height
Suspended or projected overhead in compliance with section 4.4.2	3 in. (75 mm) minimum

4.30.4 Raised and Brailled Characters and Pictorial Symbol Signs (Pictograms). Letters and numerals shall be raised one thirty-second ($\frac{1}{32}$) inch, uppercase, sans serif, or simple serif type and shall be accompanied with Grade 2 braille. Raised characters shall be at least five-eighths ($\frac{5}{8}$) inch (sixteen (16) millimeters) high, but no higher than two (2) inches (fifty (50) millimeters). Pictograms shall be accompanied by the equivalent verbal description placed directly below the pictogram. The border dimension of the pictogram shall be six (6) inches (one hundred fifty-two (152) millimeters) minimum in height.

4.30.5 Finish and Contrast. The characters and background of signs shall be eggshell, matte, or other nonglare finish. Characters and symbols shall contrast with their background, either light characters on a dark background or dark characters on a light background.

4.30.6 Mounting Location and Height. Where permanent identification is provided for rooms and spaces, signs shall be installed on the wall adjacent to the latch side of the door. Where there is no wall space to the latch side of the door, including at double leaf doors, signs shall be placed on the nearest adjacent wall. Mounting height shall be sixty (60) inches (one thousand five hundred twenty-five (1,525) millimeters) above the finish floor to the centerline of the sign. Mounting location for such signage shall be so that a person may approach within three (3) inches (seventy-six (76) millimeters) of signage without encountering protruding objects or standing within the swing of a door.

4.30.7 Symbols of Accessibility.

(1) Facilities and elements required to be identified as accessible by section 4.1 shall use the international symbol of accessibility. The symbol shall be displayed as shown in Fig. 43(a) and Fig. 43(b).

(2) Volume Control Telephones. Telephones required to have a volume control by 4.1.3(17)(b) shall be identified by a sign containing a depiction of a telephone handset with radiating sound waves.

(3) Text Telephones. Text telephones required by section 4.1.3(17)(c) shall be identified by the international TDD symbol (Fig 43(c)). In addition, if a facility has a public text telephone, directional signage indicating the location of the nearest text telephone shall be placed adjacent to all banks of telephones which do not contain a text telephone. Such directional signage shall include the international TDD symbol. If a facility has no banks of telephones, the directional signage shall be provided at the entrance (e.g., in a building directory).

(4) Assistive Listening Systems. In assembly areas where permanently installed assistive listening systems are required by section 4.1.3(19)(b), the availability of such systems shall be identified with signage that includes the international symbol of access for hearing loss (Fig. 43(d)).

4.30.8 Reserved.

4.31 Telephones.

4.31.1 General. Public telephones required to be accessible by section 4.1 shall comply with section 4.31.

4.31.2 Clear Floor or Ground Space. A clear floor or ground space at least thirty (30) inches by forty-eight (48) inches (seven hundred sixty (760) millimeters by one thousand two hundred twenty (1,220) millimeters) that allows either a forward or parallel approach by a person using a wheelchair shall be provided at telephones (see Fig. 44). The clear floor or ground space shall comply with section 4.2.4. Bases, enclosures, and fixed seats shall not impede approaches to telephones by people who use wheelchairs.

4.31.3 Mounting Height. The highest operable part of the telephone shall be within the reach ranges specified in section 4.2.5 or 4.2.6.

4.31.4 Protruding Objects. Telephones shall comply with section 4.4.

4.31.5 Hearing Aid Compatible and Volume Control Telephones Required by 4.1.

(1) Telephones shall be hearing aid compatible.

(2) Volume controls, capable of a minimum of twelve (12) dbA and a maximum of eighteen (18) dbA above normal shall be provided in accordance with 4.1.3. If an automatic reset is provided then eighteen (18) dbA may be exceeded.

4.31.6 Controls. Telephones shall have pushbutton controls where service for such equipment is available.

4.31.7 Telephone Books. Telephone books, if provided, shall be located in a position that complies with the reach ranges specified in sections 4.2.5 and 4.2.6.

4.31.8 Cord Length. The cord from the telephone to the handset shall be at least twenty-nine (29) inches (seven hundred and thirty-five (735) millimeters) long.

4.31.9 Text Telephones Required by section 4.1.

(1) Text telephones used with a pay telephone shall be permanently affixed within, or adjacent to, the telephone enclosure. If an acoustic coupler is used, the telephone cord shall be sufficiently long to allow connection of the text telephone and the telephone receiver.

(2) Pay telephones designed to accommodate a portable text telephone shall be equipped with a shelf and an electrical outlet within or adjacent to the telephone enclosure. The telephone handset shall be capable of being placed flush on the surface of the shelf. The shelf shall be capable of accommodating a text telephone and shall have six (6) inches (one hundred fifty-two (152) millimeters) minimum vertical clearance in the area where the text telephone is to be placed.

(3) Equivalent facilitation may be provided. For example, a portable text telephone may be made available in a hotel at the registration desk if it is available on a twenty-four (24) hour basis for use with nearby public pay telephones. In this instance, at least one (1) pay telephone shall comply with paragraph 2 of this section. In addition, if an acoustic coupler is used, the telephone handset cord shall be sufficiently long so as to allow connection of the text telephone and the telephone receiver. Directional signage shall be provided and shall comply with section 4.30.7.

4.32 Fixed or Built-in Seating and Tables.

4.32.1 Minimum Number. Fixed or built-in seating or tables required to be accessible by section 4.1 shall comply with section 4.32.

4.32.2 Seating. If seating spaces for people in wheelchairs are provided at fixed tables or counters, clear floor space complying with section 4.2.4 shall be provided. Such clear floor space shall not overlap knee space by more than nineteen (19) inches (four hundred eighty-five (485) millimeters) (see Fig. 45).

4.32.3 Knee Clearances. If seating for people in wheelchairs is provided at tables or counters, knee spaces at least twenty-seven (27) inches (six hundred eighty-five (685) millimeters) high, thirty (30) inches (seven hundred sixty (760) millimeters) wide, and nineteen (19) inches (four hundred eighty-five (485) millimeters) deep shall be provided (see Fig. 45).

4.32.4 Height of Tables or Counters. The tops of accessible tables and counters shall be from twenty-eight (28) inches to thirty-four (34) inches (seven hundred ten (710)

millimeters to eight hundred sixty-five (865) millimeters) above the finish floor or ground.

4.33 Assembly Areas.

4.33.1 Minimum Number. Assembly and associated areas required to be accessible by section 4.1 shall comply with section 4.33.

4.33.2 Size of Wheelchair Locations. Each wheelchair location shall provide minimum clear ground or floor spaces as shown in Fig. 46.

4.33.3 Placement of Wheelchair Locations. Wheelchair areas shall be an integral part of any fixed seating plan and shall be provided so as to provide people with physical disabilities a choice of admission prices and lines of sight comparable to those for members of the general public. They shall adjoin an accessible route that also serves as a means of egress in case of emergency. At least one (1) companion fixed seat shall be provided next to each wheelchair seating area. When the seating capacity exceeds three hundred (300), wheelchair spaces shall be provided in more than one (1) location. Readily removable seats may be installed in wheelchair spaces when the spaces are not required to accommodate wheelchair users.

EXCEPTION: Accessible viewing positions may be clustered for bleachers, balconies, and other areas having sight lines that require slopes of greater than five percent (5%). Equivalent accessible viewing positions may be located on levels having accessible egress.

4.33.4 Surfaces. The ground or floor at wheelchair locations shall be level and shall comply with section 4.5.

4.33.5 Access to Performing Areas. An accessible route shall connect wheelchair seating and locations with performing areas, including stages, arena floors, dressing rooms, locker rooms, and other spaces used by performers.

4.33.6 Placement of Listening Systems. If the listening system provided serves individual fixed seats, then such seats shall be located within a fifty (50) foot (fifteen (15) meters) viewing distance of the stage or playing area and shall have a complete view of the stage or playing area.

4.33.7 Types of Listening Systems. Assistive listening systems (ALS) are intended to augment standard public address and audio systems by providing signals which can be received directly by persons with special receivers or their own hearing aids and which eliminate or filter background noise. The type of assistive listening system appropriate for a particular application depends on the

characteristics of the setting, the nature of the program, and the intended audience. Magnetic induction loops, infrared, and radio frequency systems are types of listening systems which are appropriate for various applications.

4.34 Automated Teller Machines.

4.34.1 General. Each machine required to be accessible by section 4.1.3 shall be on an accessible route and shall comply with section 4.34.

4.34.2 Controls. Controls for user activation shall comply with the requirements of section 4.27.

4.34.3 Clearances and Reach Range. Free standing or built-in units not having a clear space under them shall comply with sections 4.27.2 and 4.27.3 and provide for a parallel approach and both a forward and side reach to the unit allowing a person in a wheelchair to access the controls and dispensers.

4.34.4 Equipment for Persons with Vision Impairments. Instructions and all information for use shall be made accessible to and independently usable by persons with vision impairments.

4.35 Dressing and Fitting Rooms.

4.35.1 General. Dressing and fitting rooms required to be accessible by section 4.1 shall comply with section 4.35 and shall be on an accessible route.

4.35.2 Clear Floor Space. A clear floor space allowing a person using a wheelchair to make a one hundred eighty (180) degree turn shall be provided in every accessible dressing room entered through a swinging or sliding door. No door shall swing into any part of the turning space. Turning space shall not be required in a private dressing room entered through a curtained opening at least thirty-two (32) inches (eight hundred fifteen (815) millimeters) wide if clear floor space complying with section 4.2 renders the dressing room usable by a person using a wheelchair.

4.35.3 Doors. All doors to accessible dressing rooms shall be in compliance with section 4.13.

4.35.4 Bench. Every accessible dressing room shall have a twenty-four (24) inch by forty-eight (48) inch (six hundred ten (610) millimeters by one thousand two hundred twenty (1,220) millimeters) bench fixed to the wall along the longer dimension. The bench shall be mounted seventeen (17) inches to nineteen (19) inches (four hundred thirty (430) millimeters to four hundred eighty-five (485) millimeters) above the finish floor. Clear floor space shall be provided alongside the bench to allow a person using a

wheelchair to make a parallel transfer onto the bench. The structural strength of the bench and attachments shall comply with section 4.26.3. Where installed in conjunction with showers, swimming pools, or other wet locations, water shall not accumulate upon the surface of the bench and the bench shall have a slip-resistant surface.

4.35.5 Mirror. Where mirrors are provided in dressing rooms of the same use, then in an accessible dressing room, a full-length mirror, measuring at least eighteen (18) inches wide by fifty-four (54) inches high (four hundred sixty (460) millimeters by one thousand three hundred seventy (1,370) millimeters) shall be mounted in a position affording a view to a person on the bench as well as to a person in a standing position.

5.0 Restaurants and Cafeterias.

5.1 General. Except as specified or modified in this section, restaurants and cafeterias shall comply with the requirements of sections 4.1 to 4.35. Where fixed tables (or dining counters where food is consumed but there is no service) are provided, at least five percent (5%), but not less than one (1), of the fixed tables (or a portion of the dining counter) shall be accessible and shall comply with section 4.32 as required in section 4.1.3(18). In establishments where separate areas are designated for smoking and non-smoking patrons, the required number of accessible fixed tables (or counters) shall be proportionally distributed between the smoking and non-smoking areas. Accessible fixed tables (or counters) shall be distributed throughout the space or facility.

5.2 Counters and Bars. Where food or drink is served at counters exceeding thirty-four (34) inches (eight hundred sixty-five (865) millimeters) in height for consumption by customers seated on stools or standing at the counter, a portion of the main counter which is sixty (60) inches (one thousand five hundred twenty-five (1,565) *[sic.]* millimeters) in length minimum shall be provided in compliance with section 4.32 or service shall be available at accessible tables within the same area.

5.3 Access Aisles. All accessible fixed tables shall be accessible by means of an access aisle at least thirty-six (36) inches (nine hundred fifteen (915) millimeters) clear between parallel edges of tables or between a wall and the table edges.

5.4 Dining Areas. All dining areas, including raised or sunken dining areas, loggias, and outdoor seating areas, shall be accessible. In nonelevator buildings, an accessible means of vertical access to the mezzanine is not required under the following conditions:

(1) The area of mezzanine seating measures no more than thirty-three percent (33%) of the area of the total accessible seating area.

(2) The same services and decor are provided in an accessible space usable by the general public.

(3) The accessible areas are not restricted to use by people with disabilities.

5.5 Food Service Lines. Food service lines shall have a minimum clear width of thirty-six (36) inches (nine hundred fifteen (915) millimeters), with a preferred clear width of forty-two (42) inches (one thousand sixty-five (1,065) millimeters) to allow passage around a person using a wheelchair. Tray slides shall be mounted no higher than thirty-four (34) inches (eight hundred sixty-five (865) millimeters) above the floor (see Fig. 53). If self-service shelves are provided, at least fifty percent (50%) of each type must be within reach ranges specified in sections 4.2.5 and 4.2.6.

5.6 Tableware and Condiment Areas. Self-service shelves and dispensing devices for tableware, dishware, condiments, food, and beverages shall be installed to comply with section 4.2 (see Fig. 54).

5.7 Raised Platforms. In banquet rooms or spaces where a head table or speaker's lectern is located on a raised platform, the platform shall be accessible in compliance with section 4.8 or 4.11. Open edges of a raised platform shall be protected by placement of tables or by a curb.

5.8 Vending Machines and Other Equipment. Spaces for vending machines and other equipment shall comply with section 4.2 and shall be located on an accessible route.

5.9 Reserved.

6.0 Medical Care Facilities.

6.1 General. Medical care facilities included in this section are those in which people receive physical or medical treatment or care and where persons may need assistance in responding to an emergency and where the period of stay may exceed twenty-four (24) hours. In addition to the requirements of sections 4.1 through 4.35, medical care facilities and buildings shall comply with section 6.0.

(1) Hospitals: General Purpose Hospitals, Psychiatric Facilities, Detoxification Facilities. At least ten percent (10%) of patient bedrooms and toilets and all public use and common use areas are required to be designed and constructed to be accessible.

(2) Hospitals and Rehabilitation Facilities that Specialize in Treating Conditions that Affect Mobility, or Units Within Either that Specialize in Treating Conditions that Affect Mobility. All patient bedrooms and toilets and all public use and common use areas are required to be designed and constructed to be accessible.

(3) Long Term Care Facilities, Nursing Homes. At least fifty percent (50%) of patient bedrooms and toilets and all public use and common use areas are required to be designed and constructed to be accessible.

(4) Reserved.

6.2 Entrances. At least one (1) accessible entrance that complies with section 4.14 shall be protected from the weather by canopy or roof overhang. Such entrances shall incorporate a passenger loading zone that complies with section 4.6.6.

6.3 Patient Bedrooms. Provide accessible patient bedrooms in compliance with sections 4.1 through 4.35. Accessible patient bedrooms shall comply with the following:

(1) Each bedroom shall have a door that complies with section 4.13.

EXCEPTION: Entry doors to acute care hospital bedrooms for in-patients shall be exempted from the requirement in section 4.13.6 for maneuvering space at the latch side of the door if the door is at least forty-four (44) inches (one thousand one hundred twenty (1,120) millimeters) wide.

(2) Each bedroom shall have adequate space to provide a maneuvering space that complies with section 4.2.3.

(3) Each bedroom shall have adequate space to provide a minimum clear floor space of thirty-six (36) inches (nine hundred fifteen (915) millimeters) along each side of the bed and to provide an accessible route complying with section 4.3.3 to each side of each bed.

6.4 Patient Toilet Rooms. Where toilet/bath rooms are provided as a part of a patient bedroom, each patient bedroom that is required to be accessible shall have an accessible toilet/bath room that complies with section 4.22 or section 4.23 and shall be on an accessible route.

7.0 Business and Mercantile.

7.1 General. In addition to the requirements of sections 4.1 to 4.35, the design of all areas used for business transactions with the public shall comply with section 7.0.

7.2 Sales and Service Counters, Teller Windows, Information Counters.

(1) In department stores and miscellaneous retail stores where counters have cash registers and are provided for sales or distribution of goods or services to the public, at least one (1) of each type shall have a portion of the counter which is at least thirty-six (36) inches (nine hundred fifteen (915) millimeters) in length with a maximum height of thirty-six (36) inches (nine hundred fifteen (915) millimeters) above the finish floor. It shall be on an accessible route complying with section 4.3. The accessible counters must be dispersed throughout the building or facility.

2) At ticketing counters, teller stations in a bank, registration counters in hotels and motels, box office ticket counters, and other counters that may not have a cash register but at which goods or services are sold or distributed, either:

(i) a portion of the main counter which is a minimum of thirty-six (36) inches (nine hundred fifteen (915) millimeters) in length shall be provided with a maximum height of thirty-six (36) inches (nine hundred fifteen (915) millimeters); or

(ii) an auxiliary counter with a maximum height of thirty-six (36) inches (nine hundred fifteen (915) millimeters) in close proximity to the main counter shall be provided; or

(iii) equivalent facilitation shall be provided (e.g., at a hotel registration counter, equivalent facilitation might consist of: (1) provision of a folding shelf attached to the main counter on which an individual with disabilities can write, and (2) use of the space on the side of the counter or at the concierge desk, for handing materials back and forth).

All accessible sales and service counters shall be on an accessible route complying with 4.3.

(3) Reserved.

7.3 Check-Out Aisles.

(1) Accessible check-out aisles shall be provided in conformance with the table below:

Total Check-Out Aisles of Each Design	Minimum Number of Accessible Check-Out Aisles (of each design)
1 • 4	1
5 • 8	2
8 • 15	3
Over 15	3, plus 20% of additional aisles

EXCEPTION: Where the selling space is under five thousand (5,000) square feet, only one (1) check-out aisle is required to be accessible.

Examples of check-out aisles of different “design” include those which are specifically designed to serve different functions. Different “design” includes, but is not limited to, the length of belt or no belt, or permanent signage designating the aisle as an express lane.

(2) Clear aisle width for accessible check-out aisles shall comply with section 4.2.1 and maximum adjoining counter height shall not exceed thirty-eight (38) inches (nine hundred sixty-five (965) millimeters) above the finish floor. The top of the lip shall not exceed forty (40) inches (one thousand fifteen (1,015) millimeters) above the finish floor.

(3) Signage identifying accessible check-out aisles shall comply with section 4.30.7 and shall be mounted above the check-out aisle in the same location where the check-out number or type of check-out is displayed.

7.4 Security Bollards. Any device used to prevent the removal of shopping carts from store premises shall not prevent access or egress to people in wheelchairs. An alternate entry that is equally convenient to that provided for the ambulatory population is acceptable.

8.0 Libraries.

8.1 General. In addition to the requirements of sections 4.1 to 4.35, the design of all public areas of a library shall comply with section 8.0, including reading and study areas, stacks, reference rooms, reserve areas, and special facilities or collections.

8.2 Reading and Study Areas. At least five percent (5%) or a minimum of one (1) of each element of fixed seating, tables, or study carrels shall comply with sections 4.2 and 4.32. Clearances between fixed accessible tables and between study carrels shall comply with section 4.3.

8.3 Check-out Areas. At least one (1) lane at each check-out area shall comply with section 7.2(1). Any traffic control or book security gates or turnstiles shall comply with section 4.13.

8.4 Card Catalogs and Magazine Displays. Minimum clear aisle space at card catalogs and magazine displays shall comply with Fig. 55. Maximum reach height shall comply with section 4.2, with a height of forty-eight (48) inches

(one thousand two hundred twenty (1,220) millimeters) preferred irrespective of approach allowed.

8.5 Stacks. Minimum clear aisle width between stacks shall comply with section 4.3, with a minimum clear aisle width of forty-two (42) inches (one thousand sixty-five (1,065) millimeters) preferred where possible. Shelf height in stack areas is unrestricted (see Fig. 56).

9.0 Accessible Transient Lodging. Except as specified in the special technical provisions of this section, accessible transient lodging shall comply with the applicable requirements of sections 4.1 through 4.35. Transient lodging includes facilities or portions thereof used for sleeping accommodations, when not classed as a medical care facility.

9.1 Hotels, Motels, Inns, Boarding Houses, Dormitories, Resorts, and Other Similar Places of Transient Lodging.

9.1.1 General. All public use and common use areas are required to be designed and constructed to comply with section 4.0.

EXCEPTION: Sections 9.1 through 9.4 do not apply to an establishment located within a building that contains not more than five (5) rooms for rent or hire and that is actually occupied by the proprietor of such establishment as the residence of such proprietor.

9.1.2 Accessible Units, Sleeping Rooms, and Suites. Accessible sleeping rooms or suites that comply with the requirements of section 9.2 shall be provided in conformance with the table below. In addition, in hotels of fifty (50) or more sleeping rooms or suites that include roll-in showers shall also be provided in conformance with the table below. In addition, in hotels, of fifty (50) or more sleeping rooms or suites, additional accessible sleeping rooms or suites that include a roll-in shower shall also be provided in conformance with the table below. Such accommodations shall comply with the requirements of sections 9.2, 4.21, and Fig. 57(a) or 57(b).

Number of Rooms	Accessible Rooms	Rooms with Roll-In Showers
1 to 25	1	
26 to 50	2	
51 to 75	3	1
76 to 100	4	1

101 to 150	5	2
151 to 200	6	2
201 to 300	7	3
301 to 400	8	4
401 to 500	9	4 plus 1 for each additional 100 over 400
501 to 1,000	2% of total	
1,001 and over	20 plus 1 for each 100 over 1,000	

9.1.3 Sleeping Accommodations for Persons with Hearing Impairments. In addition to those accessible sleeping rooms and suites required by section 9.1.2, sleeping rooms and suites that comply with section 9.3 (Visual Alarms, Notification Devices, and Telephones) shall be provided in conformance with the following table:

Number of Elements	Accessible Elements
1 to 2	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1,000	2% of total
1,001 and over	20 plus 1 for each 100 over 1,000

9.1.4 Classes of Sleeping Accommodations.

(1) In order to provide persons with disabilities a range of options equivalent to those available to other persons served by the facility, sleeping rooms and suites required to be accessible by section 9.1.2 shall be dispersed among the various classes of sleeping accommodations available to patrons of the place of transient lodging. Factors to be considered include room size, cost, amenities provided, and the number of beds provided.

(2) Equivalent Facilitation. For purposes of this section, it shall be deemed equivalent facilitation if the operator of a facility elects to limit construction of accessible rooms to those intended for multiple occupancy, provided that such rooms are made available at the cost of a single-occupancy room to an individual with disabilities who requests a single-occupancy room.

9.1.5 Reserved.

9.2 Requirements for Accessible Units, Sleeping Rooms, and Suites.

9.2.1 General. Accessible units, sleeping rooms, and suites required to be accessible by section 9.1 shall comply with section 9.2.

9.2.2 Minimum Requirements. An accessible unit, sleeping room, or suite shall be on an accessible route complying with section 4.3 and have the following accessible elements and spaces.

(1) Accessible sleeping rooms shall have a thirty-six (36) inch (nine hundred fifteen (915) millimeter) clear width maneuvering space located along both sides of a bed, except that where two (2) beds are provided, this requirement can be met by providing a thirty-six (36) inch (nine hundred fifteen (915) millimeter) wide maneuvering space located between the two (2) beds.

(2) An accessible route complying with section 4.3 shall connect all accessible spaces and elements including telephones within the unit, sleeping room, or suite. This is not intended to require an elevator in multistory units as long as the spaces identified in section 9.2.2(6) and 9.2.2(7) are accessible levels and the accessible sleeping area is suitable for dual occupancy.

(3) Doors and doorways designed to allow passage into and within all sleeping rooms, suites, or other covered units shall comply with section 4.13.

(4) If fixed or built-in storage facilities such as cabinets, shelves, closets, and drawers are provided in accessible spaces, at least one (1) of each type provided shall contain storage space complying with section 4.25. Additional storage may be provided outside of the dimensions required by section 4.25.

(5) All controls in accessible units, sleeping rooms, and suites shall comply with section 4.27.

(6) Where provided as part of an accessible unit, sleeping room, or suite, the following spaces shall be accessible and shall be on an accessible route:

- (a) The living area.
- (b) The dining area.
- (c) At least one (1) sleeping area.
- (d) The patio, terrace, or balcony area.

EXCEPTION: The requirements of section 4.13.8 and section 4.3.8 do not apply where it is necessary to utilize a higher door threshold or a change in

level to protect the integrity of the unit from wind/water damage. Where this exception results in a patio, terrace, or balcony area that is not at an accessible level, equivalent facilitation shall be provided, for example, equivalent facilitation of a hotel patio or balcony might consist of providing raised decking or a ramp to provide accessibility.

(e) At least one (1) full bathroom (i.e., one (1) with a water closet, a lavatory, and a bathtub or shower).

(f) If only half baths are provided, at least one (1) half bath.

(g) Carports, garages, or parking spaces.

(7) Kitchens, Kitchenettes, or Wet Bars. When provided as accessory to a sleeping room or suite, kitchens, kitchenettes, wet bars, or similar amenities shall be accessible. Clear floor space for a front or parallel approach to cabinets, counters, sinks, and appliances shall be provided to comply with section 4.2.4. Countertops and sinks shall be mounted at a maximum height of thirty-four (34) inches (eight hundred sixty-five (865) millimeters) above the floor. At least fifty percent (50%) of shelf space in cabinets or refrigerator/freezers shall be within the reach ranges of 4.2.5 or 4.2.6 and space shall be designed to allow for the operation of cabinet and/or appliance doors so that all cabinets and appliances are accessible and usable. Controls and operating mechanisms shall comply with 4.27.

(8) Sleeping room accommodations for persons with hearing impairments required by 9.1 and complying with 9.3 shall be provided in the accessible sleeping room or suite.

9.3 Visual alarms, Notification Devices and Telephones.

9.3.1 General. In sleeping rooms required to comply with this section, auxiliary visual alarms shall be provided and shall comply with 4.28.4. Visual notification devices shall also be provided in units, sleeping rooms, and suites to alert room occupants of incoming telephone calls and a door knock or bell. Notification devices shall not be connected to auxiliary visual alarm signal appliances. Permanently installed telephones shall have volume controls complying with 4.31.5: an accessible electrical outlet within four (4) feet (one thousand two hundred twenty (1,220) millimeters) of a telephone connection shall be provided to facilitate the use of a text telephone.

9.3.2 Equivalent Facilitation. For purposes of this section, equivalent facilitation shall include the installation of

electrical outlets (including outlets connected to a facility's central alarm system) and telephone wiring in sleeping rooms and suites to enable persons with hearing impairments to utilize portable visual alarms and communication devices provided by the operator of the facility.

9.4 Other Sleeping Rooms and Suites. Doors and doorways designed to allow passage into and within all sleeping units or other covered units shall comply with 4.13.5.

9.5 Transient Lodging in Homeless Shelters, Halfway Houses, Transient Group Homes, and Other Social Service Establishments.

9.5.1 New Construction. In new construction, all public use and common use areas are required to be designed and constructed to comply with section 4. At least one (1) of each type of amenity (such as washers, dryers, and similar equipment installed for the use of occupants) in each common area shall be accessible and shall be located on an accessible route to any accessible unit or sleeping accommodation.

EXCEPTION: Where elevators are not provided as allowed in 4.1.3(5), accessible amenities are not required on inaccessible floors as long as one (1) of each type is provided in common areas on accessible floors.

9.5.2 Reserved.

9.5.3 Accessible Sleeping Accommodations in New Construction. Accessible sleeping rooms shall be provided in conformance with the table in 9.1.2 and shall comply with 9.2 Accessible Units, Sleeping Rooms and Suites (where the items are provided). Additional sleeping rooms that comply with 9.3 Sleeping Accommodations for Persons with Hearing Impairments shall be provided in conformance with the table provided in 9.1.3. In facilities with multi-bed rooms or spaces, a percentage of the beds equal to the table provided in 9.1.2 shall comply with 9.2.2(1).

10.0 Reserved.

11.0 Children's Facilities.

11.1 Application. This section applies to facilities, or portion of facilities, constructed according to children's dimensions and anthropometrics for ages 2 through 12. Facilities covered by this section shall comply with the applicable requirements of 4.1 through 4.35 and the special application sections, except as modified or otherwise provided in this section. All public and common use areas

covered by this section are required to be designed and constructed to comply with 4.1 through 4.35, except as modified or otherwise provided in this section. Accessible elements and spaces covered by this section shall be on an accessible route complying with 4.3, 11.3, and 11.4. The specifications in this section are based on children's dimensions and anthropometrics.

The phrase "constructed according to children's dimensions and anthropometrics" means where the construction of a facility reflects the size and dimensions, reach ranges, level of strength and stamina, or other characteristics of children. Facilities constructed that do not reflect children's characteristics are not covered by this section.

11.2 Reach Ranges.

11.2.1 General. The requirements in 4.2.5 and 4.2.6 are modified by the following provisions.

11.2.2 Forward and Side Reach. The high forward or high side reach, and the low forward or low side reach shall comply with A, B, or C in the table below. Selection A, B, or C should correspond to the age range of the primary user group.

Forward and Side Reach

- | | |
|------------------------|--------------------------------------|
| A (ages 2 through 4): | High Reach (not more than)•36 inches |
| | Low Reach (not less than)•20 inches |
| B (ages 5 through 8): | High Reach•40 inches |
| | Low Reach•18 inches |
| C (ages 9 through 12): | High Reach•44 inches |
| | Low Reach•16 inches |

11.3 Protruding Objects. The requirements in 4.4.1 are modified by 11.3. Objects projecting from walls with their leading edges between twelve (12) inches and eighty (80) inches (three hundred five (305) millimeters and two thousand thirty (2,030) millimeters) above the finish floor shall protrude no more than four (4) inches (one hundred (100) millimeters) into walks, halls, corridors, passageways, or aisles. Objects mounted with their leading edges at or below twelve (12) inches (three hundred five (305) millimeters) above the finish floor may protrude any amount. Free-standing objects mounted on posts or pylons may overhang twelve (12) inches (three hundred five (305) millimeters) maximum from twelve (12) inches to eighty (80) inches (three hundred five (305) millimeters to two thousand thirty (2,030) millimeters) above the ground or finish floor. Protruding objects shall not reduce the clear width of an accessible route or maneuvering space.

11.4 Handrails at Ramps and Stairs.

11.4.1 General. In addition to the handrails required by 4.8 and 4.9, a second set of handrails shall be provided complying with 4.8.5 or 4.9.4 and 4.26.2, except as modified by the following provisions.

11.4.2 Height. The top of handrail gripping surfaces shall be mounted between twenty (20) inches and twenty-eight (28) inches (five hundred ten (510) millimeters and seven hundred ten (710) millimeters) above ramp surfaces on stair nosings.

11.4.3 Size. The gripping surfaces of handrails shall have a diameter or width of one (1) inch to one and one-fourth (1¼) inches (twenty-five (25) millimeters to thirty (30) millimeters), or the shape shall provide an equivalent gripping surface.

11.5 Drinking Fountains and Water Coolers.

11.5.1 General. Drinking fountains or water coolers required to be wheelchair accessible by 4.1 shall comply with 4.15, except as modified by 11.5. The requirements in 4.15.2 and 4.15.5 are modified by the following provisions.

11.5.2 Spout Height. Spouts shall be higher than thirty (30) inches (seven hundred sixty (760) millimeters), measured from the floor or ground surface to the spout outlet.

11.5.3 Clearances. Wall-mounted and post-mounted cantilevered units shall have a clear knee space between the bottom of the apron and the floor or ground at least twenty-four (24) inches (six hundred ten (610) millimeters) high and eight (8) inches (two hundred five (205) millimeters) deep, measured from the leading edge of the fountain. Clear toe space shall be twelve (12) inches (three hundred five (305) millimeters) high minimum, measured from the finish floor. Such units shall also have a minimum clear floor space thirty (30) inches by forty-eight (48) inches (seven hundred sixty (760) millimeters by one thousand two hundred twenty (1,220) millimeters) to allow a forward approach to the unit. The clear floor space may extend a maximum of fourteen (14) inches (three hundred five (305) mm) underneath the fountain.

11.6 Water Closets, Toilet Seats, Grab Bars, and Toilet Paper Dispensers.

11.6.1 General. Water closets required to be accessible by 4.22.4 shall comply with 4.16, except as modified by 11.6. The requirements in 4.16 and 4.26.2 are modified by the following provisions.

11.6.2 Placement. The centerline and seat height of the water closet and the centerline height of the grab bars and toilet paper dispenser shall comply with A, B, or C in the

table below. Selection of A, B, or C should correspond [sic.] to the age range of the primary user group. The centerline of water closets shall be measured from one (1) side wall or stall partition.

Specifications for Water Closets, Toilet Seats, Grab Bars, and Toilet Paper Dispensers

- A: Ages 2 through 4
 - Water closet centerline • 12 inches
 - Toilet seat height • 11 inches to 12 inches
 - Grab bar height • 18 inches to 20 inches
 - Dispenser height • 14 inches
- B: Ages 5 through 8
 - Water closet height • 12 inches to 15 inches
 - Toilet seat height • 12 inches to 15 inches
 - Grab bar height • 20 inches to 25 inches
 - Dispenser height • 14 inches to 17 inches
- C: Ages 9 through 12
 - Water closet height • 15 inches to 18 inches
 - Toilet seat height • 15 inches to 17 inches
 - Grab bar height • 25 inches to 27 inches
 - Dispenser height • 17 inches to 19 inches

11.6.3 Grab Bar Size. The diameter or width of the gripping surface of a grab bar shall be one (1) inch to one and one-fourth (1¼) inches (twenty-five (25) mm to thirty (30) mm), or the shape shall have an equivalent gripping surface.

11.6.4 Flush Controls. Flush controls shall be located within the reach ranges [sic.] specified by 11.2.

11.7 Toilet Stalls.

11.7.1 General. Toilet stalls required to be accessible by 4.22.4 shall comply with 4.17, except as modified by 11.7. The requirements in 4.17.2, 4.17.3, 4.17.4, 4.17.6, and 4.26.2 are modified by the following provisions.

11.7.2 Water Closets. Water closets in accessible stalls shall comply with 11.6.

11.7.3 Depth. Standard stalls with floor-or-wall-mounted water closets shall have a depth of fifty-nine (59) inches (one thousand five hundred (1,500) millimeters) minimum. Standard stalls at the end of a row with floor-or-wall-mounted water closets shall have a depth of fifty-nine (59) inches (one thousand five hundred (1,500) millimeters) in addition to the minimum thirty-six (36) inches (nine hundred fifteen (915) millimeters) required for the stall door.

11.7.4 Toe Clearance. In standard stalls of minimum dimension, the front partition and at least one (1) side partition shall provide a toe clearance of twelve (12) inches (three hundred five (305) millimeters) minimum above the finish floor. If the depth of the stall is greater than sixty (60) inches (one thousand five hundred twenty-five (1,525) millimeters), then the toe space is not required.

11.7.5 Grab Bars. Grab bar mounting heights shall comply with the heights specified in 11.6. The diameter or width of the gripping surfaces of a grab bar shall be one (1) inch to one and one-fourth (1¼) inches (twenty-five (25) millimeters to thirty (30) millimeters), or the shape shall provide an equivalent gripping surface.

11.8 Lavatories and Mirrors.

11.8.1 General. Lavatories and mirrors required to be accessible by 4.22.6 and 4.23.6 shall comply with 4.19, except as modified by 11.8. The requirements in 4.19.2, 4.19.3, and 4.19.6 are modified by the following provisions.

11.8.2 Height and Clearances. Lavatories shall be mounted with the rim or counter surface no higher [sic.] than thirty (30) inches (seven hundred sixty (760) millimeters) above the finish floor. A clearance of twenty-seven (27) inches (six hundred eighty-five (685) millimeters) minimum measured from the finish floor to the bottom of the apron shall be provided. Minimum clear knee space twenty-four (24) inches (six hundred ten (610) millimeters) high, measured from the finish floor, and eight (8) inches (two hundred five (205) millimeters) deep, measured from the leading edge of the lavatory, shall be provided. Clear toe space shall be twelve (12) inches (three hundred five (305) millimeters) high minimum, measured from the finish floor.

11.8.3 Clear Floor Space. Clear floor space shall extend a maximum of fourteen (14) inches (three hundred fifty-five (355) millimeters) underneath the lavatory.

11.8.4 Mirrors. Mirrors shall be mounted with the bottom edge of the reflecting surface no higher than thirty-four (34) inches (eight hundred sixty-five (865) millimeters) above the finish floor.

11.9 Storage.

11.9.1 General. Fixed storage facilities such as lockers, cabinets, shelves, closets, and drawers required to be accessible by 4.1 shall comply with 4.25, except as modified by 11.9. The requirements in 4.25.3 are modified by the following provisions.

11.9.2 Height. Accessible storage spaces shall be within at least one (1) of the reach ranges specified in 11.2. Clothes rods, hooks, or shelves shall be a maximum of thirty-six (36) inches (nine hundred fifteen (915) mm) above the finish floor for a side approach.

11.10 Fixed or Built-in Seating and Tables.

11.10.1 General. Fixed or built-in seating or tables required to be accessible by 4.1 shall comply with 4.32, except as modified by 11.10. The requirements in 4.32.2, 4.32.3, and 4.32.4 are modified by the following provisions.

11.10.2 Seating. Clear floor space shall not overlap knee space by more than fourteen (14) inches (three hundred fifty-five (355) millimeters).

11.10.3 Knee Clearances. Knee clearance at least twenty-four (24) inches (six hundred ten (610) millimeters) high, thirty (30) inches (seven hundred sixty (760) millimeters) wide, and fourteen (14) inches (three hundred fifty-five (355) millimeters) deep shall be provided.

11.10.4 Height of Tables or Counters. The tops of accessible tables and counters shall be from twenty-six (26) inches to thirty (30) inches (six hundred sixty (660) millimeters to seven hundred sixty (760) millimeters) above the finish floor or ground.

[The following tables and figures were printed with the best available copy provided by the fire prevention and building safety commission.]

Table 1 Graphic Conventions	
Convention	Description
	Typical dimension line showing U.S. customary units (in inches) above the line and SI units (in millimeters) below
	Dimensions for short distances indicated on extended line
	Dimension line showing alternate dimensions required
	Direction of approach
	Maximum
	Minimum
	Boundary of clear floor area
	Centerline

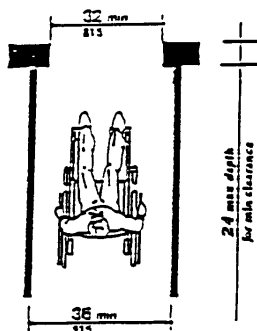


Fig. 1
Minimum Clear Width
for Single Wheelchair

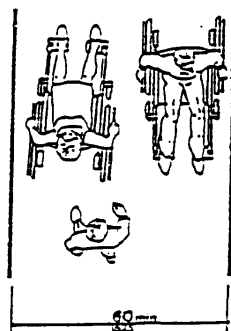


Fig. 2
Minimum Clear Width
for Two Wheelchairs

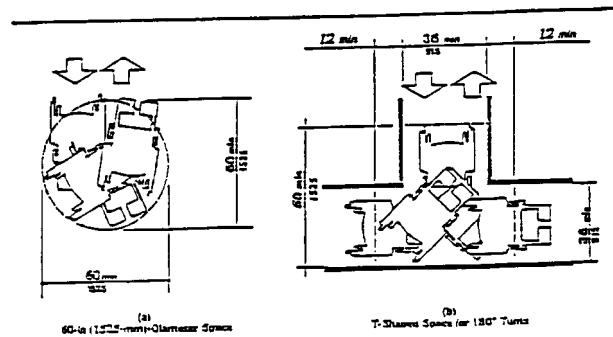
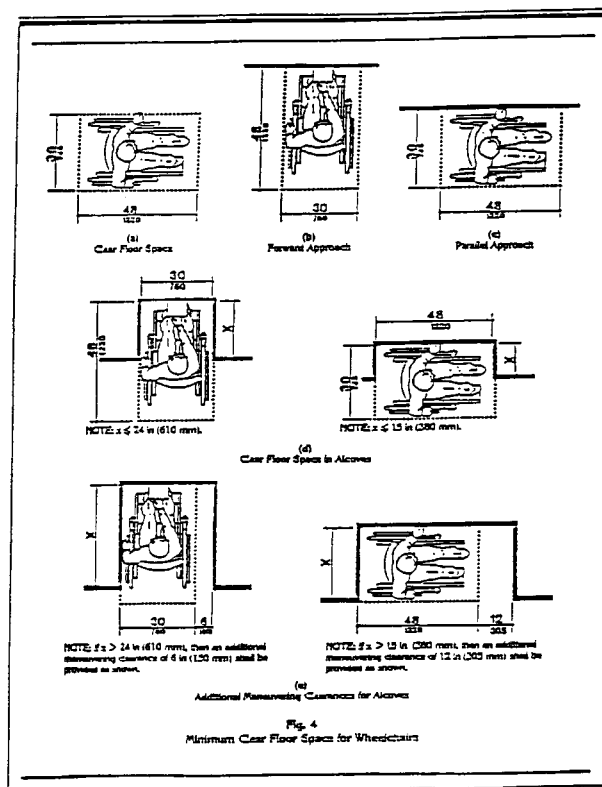
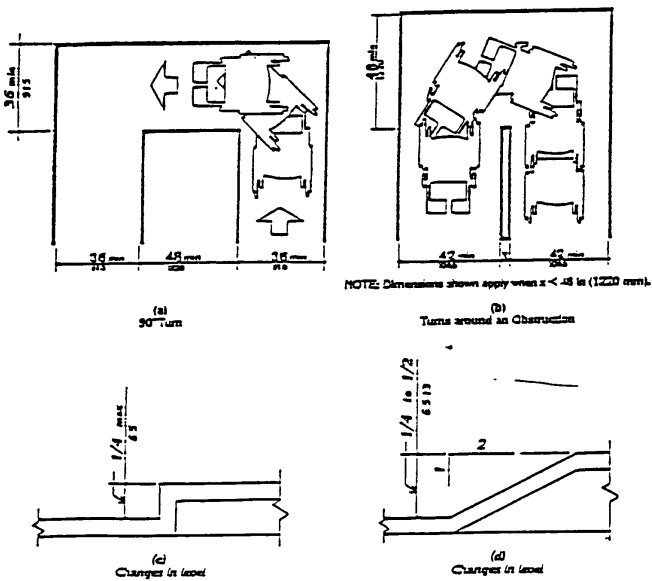
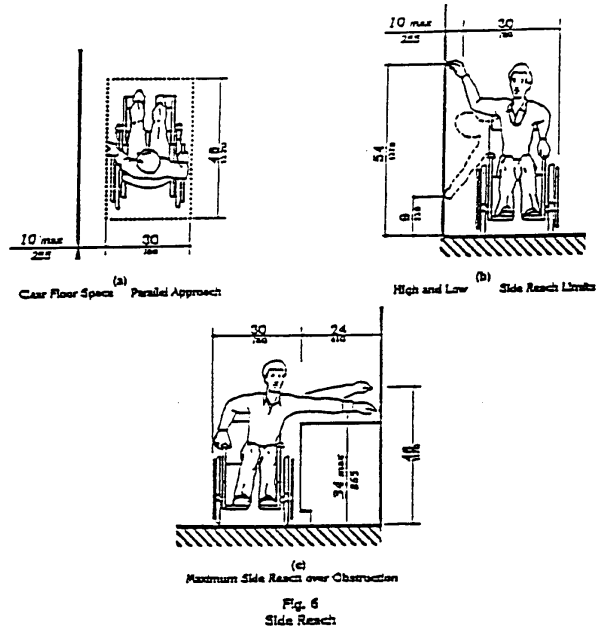
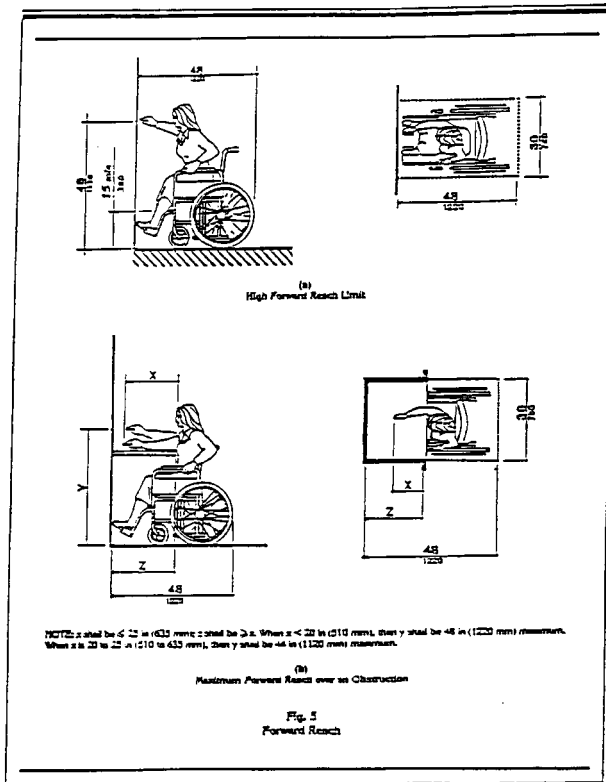


Fig. 3
Wheelchair Turning Space





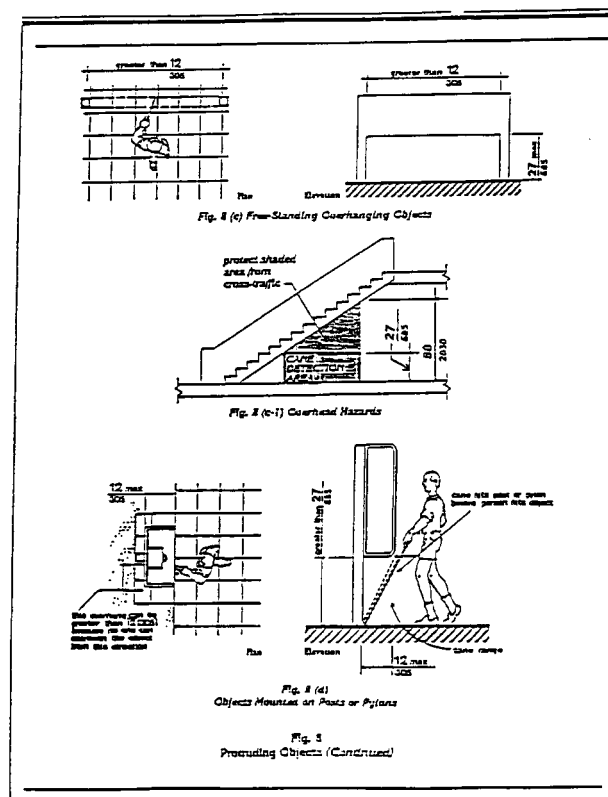
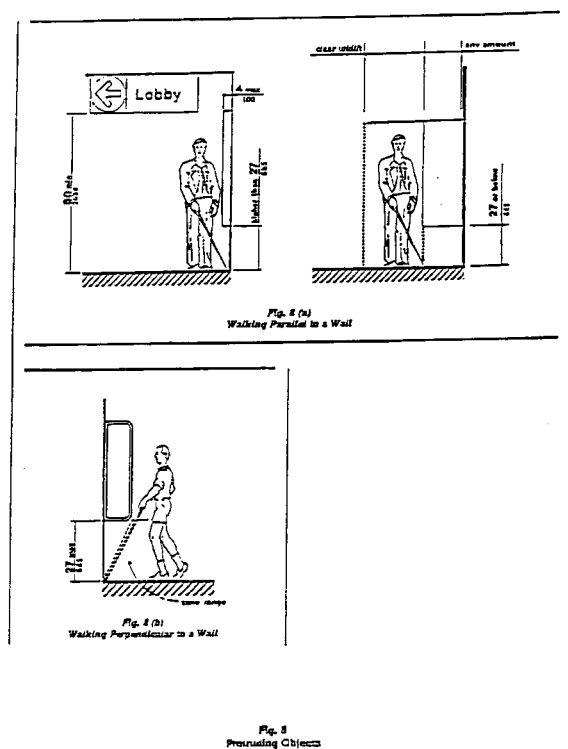


Fig. 8 (a)
Example of Protection around Wall-Mounted Objects and Measurements of Clear Widths

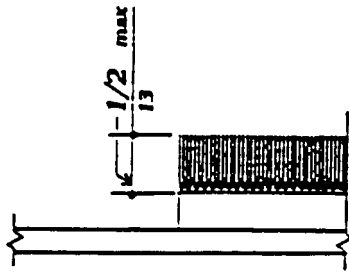


Fig. 8 (f)
Carpet Pile Thickness

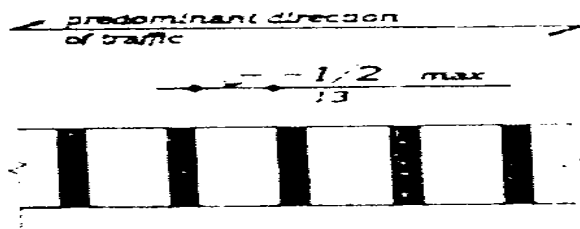


Fig. 8 (g)
Gratings

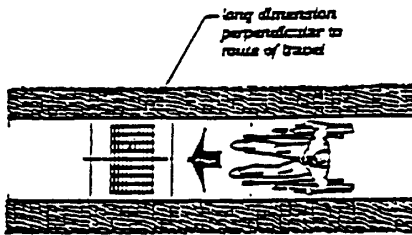


Fig. 8(h)

FIGURE

9

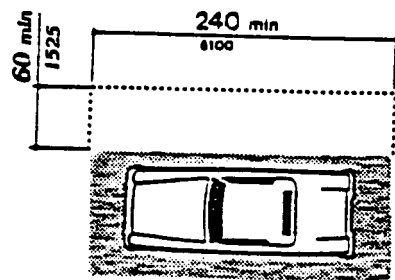


Fig. 10
Access Aisle at Passenger Loading Zones

(RESERVED)

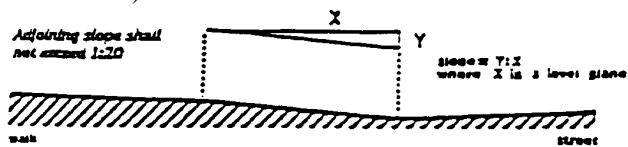
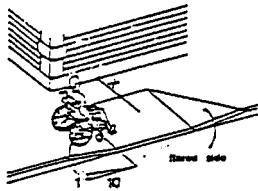
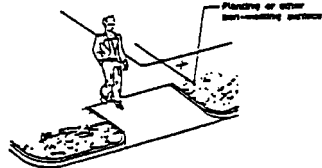


Fig. 11
Measurement of Curb Ramp Slopes



(a)
Ramp Side



(b)
Ramp Side

If X is less than 48 in.,
then the slope of the ramp side
shall not exceed 1:12.

Fig. 12
Sides of Curb Ramps

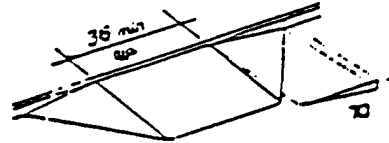
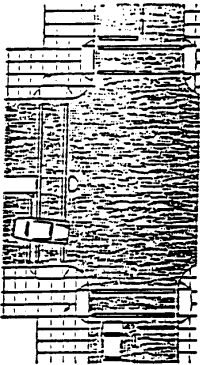
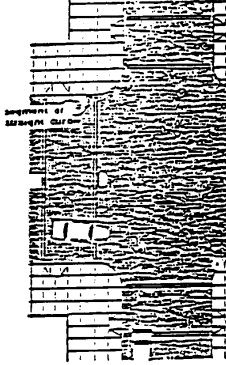


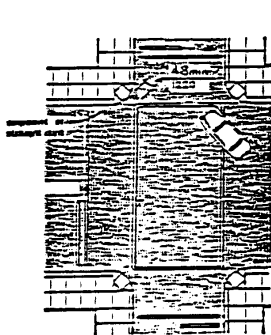
Fig. 13
Built-Up Curb Ramp



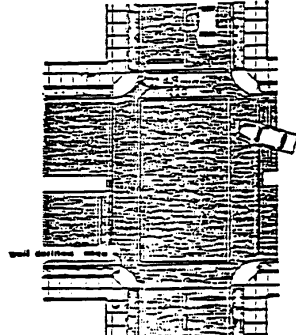
(a)



(b)

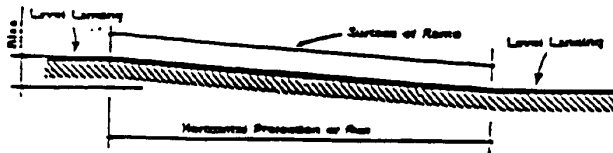


(c)



(d)

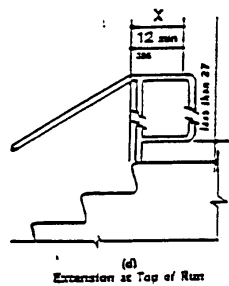
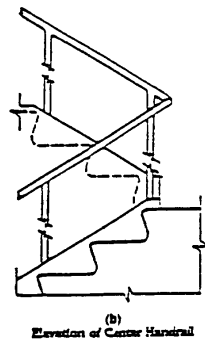
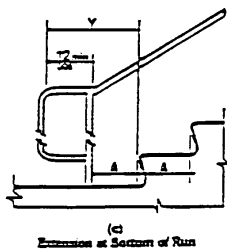
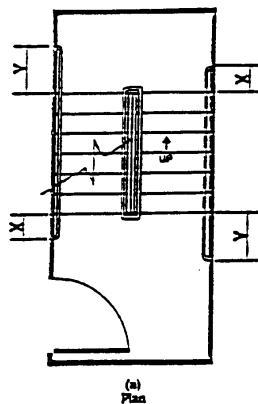
Fig. 15
Curb Ramps at Marked Crossings



	Maximum Rise		Minimum Horizontal Projection	
Slope	in	mm	ft	m
1:12 to < 1:16	10	760	30	9
1:16 to < 1:20	20	760	48	12

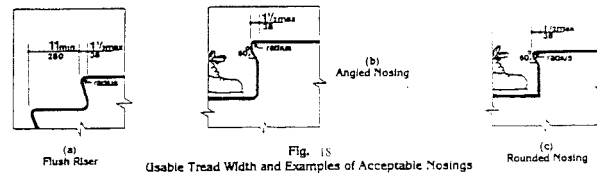
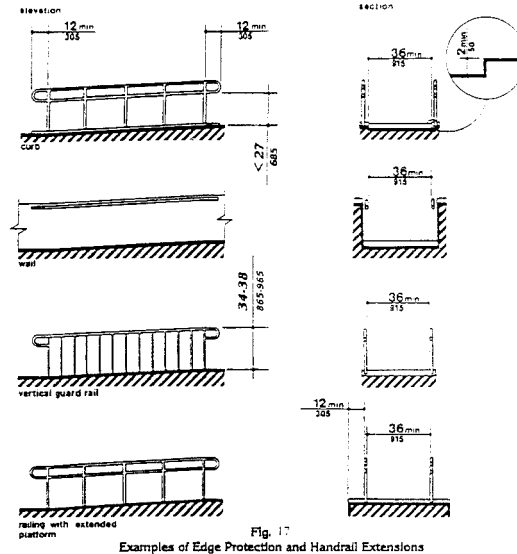
Fig. 16

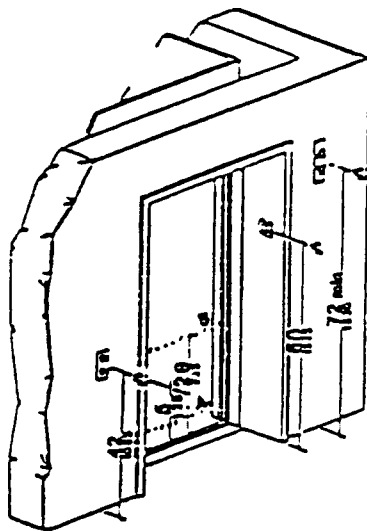
Components of a Single Ramp Run and Sample Ramp Dimensions



NOTE:
 X is the 12 in minimum handrail extension required at each top rise.
 Y is the minimum handrail extension of 12 in plus the width of one tread that is required at each bottom rise.

Fig. 19
 Stair Handrails





NOTE: The automatic door reopening device is activated if an object passes through either line A or line B. Line A and line B represent the vertical locations of the door reopening device not requiring contact.

Fig. 20
Holstway and Elevator Entrances

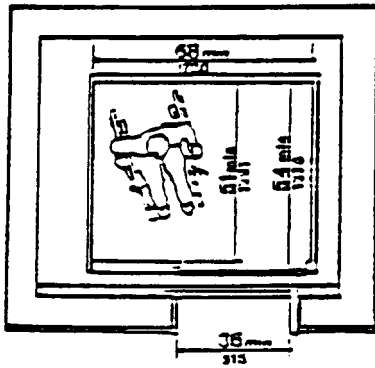
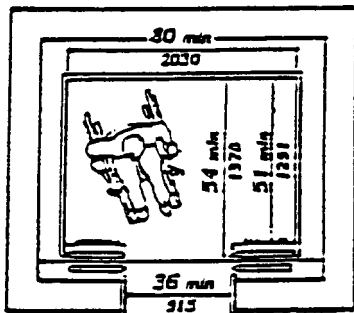


Fig. 22
Minimum Dimensions of Elevator Cars

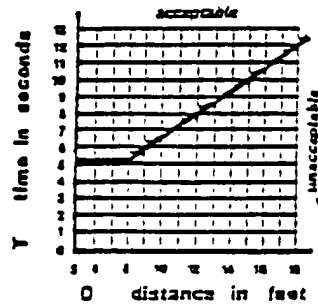


Fig. 21
Graph of Timing Equation

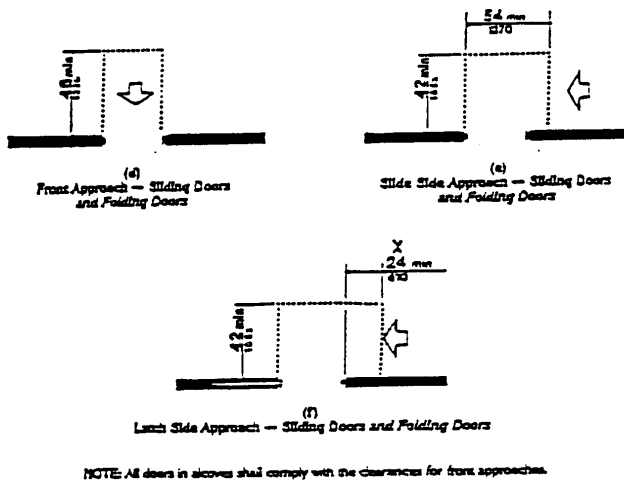


Fig. 25
Maneuvering Clearances at Doors (Continued)

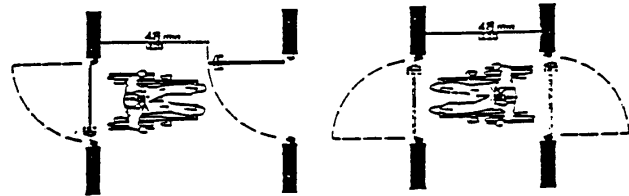


Fig. 26
Two Hinged Doors in Series

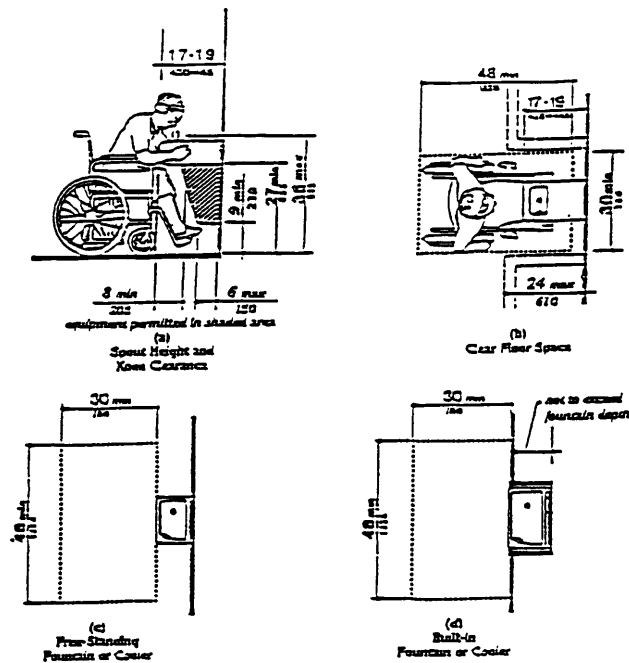


Fig. 27
Drinking Fountains and Water Coolers

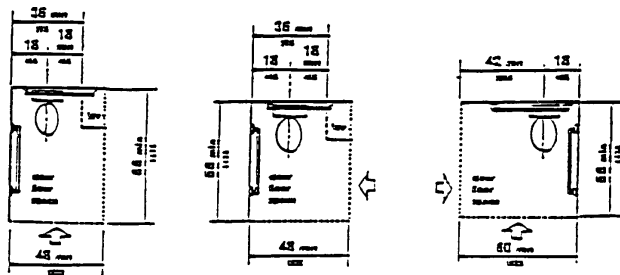
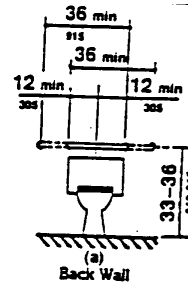
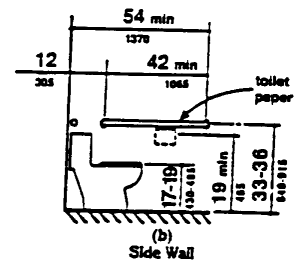


Fig. 28

Clear Floor Space at Water Closets



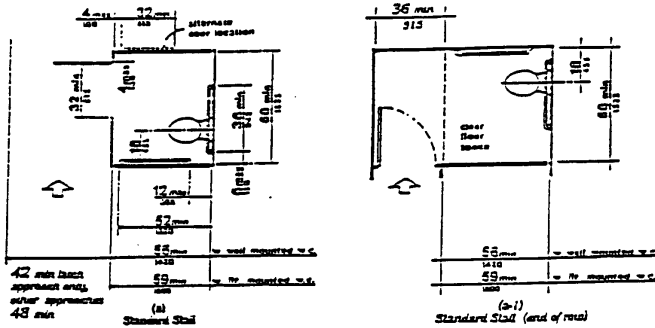
(a) Back Wall



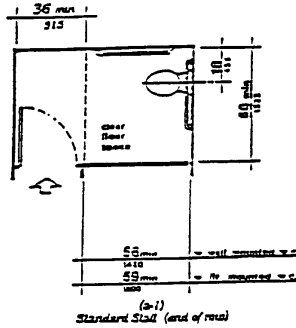
(b) Side Wall

Fig. 29

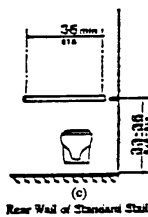
Grab Bars at Water Closets



(a) Standard Stall

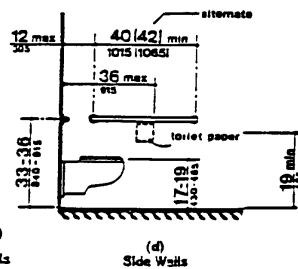


(b-1) Standard Stall (end of row)



(c) Rear Wall of Standard Stall

RESERVED
(b)



(d) Side Walls

Fig. 30

Toilet Stalls

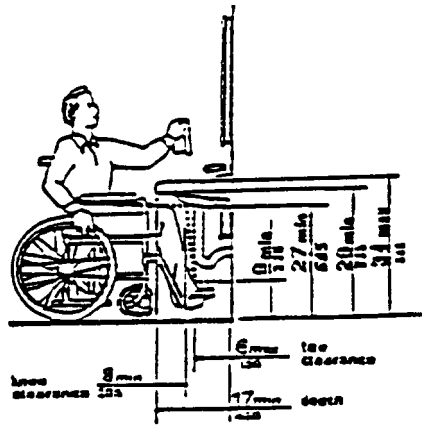


Fig. 31
Livery Clearances

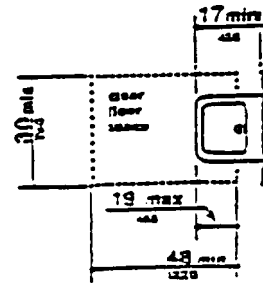


Fig. 32
Clear Floor Space at Lavatories

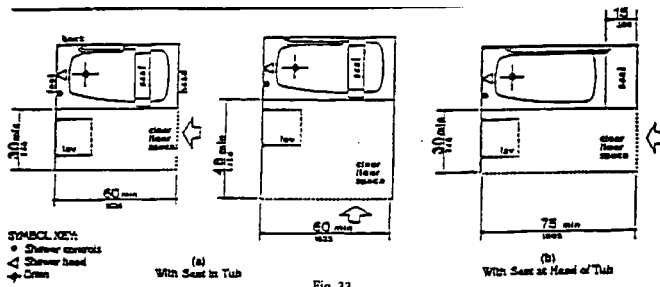
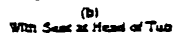
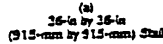


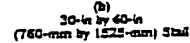
Fig. 33
Clear Floor Space at Bathrooms



Grab Bars at Bathrooms



Shower Size and Clearances



Shower Size and Clearances



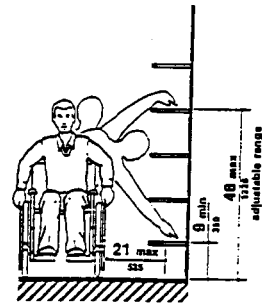
Shower Seat Design

36-in by 36-in (915-mm by 915-mm) Slab

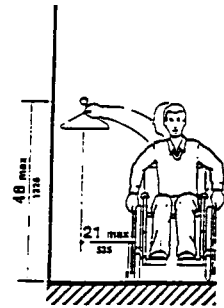
NOTE: Show head and crop! One may be on back (long) and (as shown) or on either side wall.

30-in by 60-in (760-mm by 1525-mm) Steel

Fig. 37
Grab Bars at Shower Stalls



(a) Shelves



(b) Closets

Fig. 38
Storage Shelves and Closets

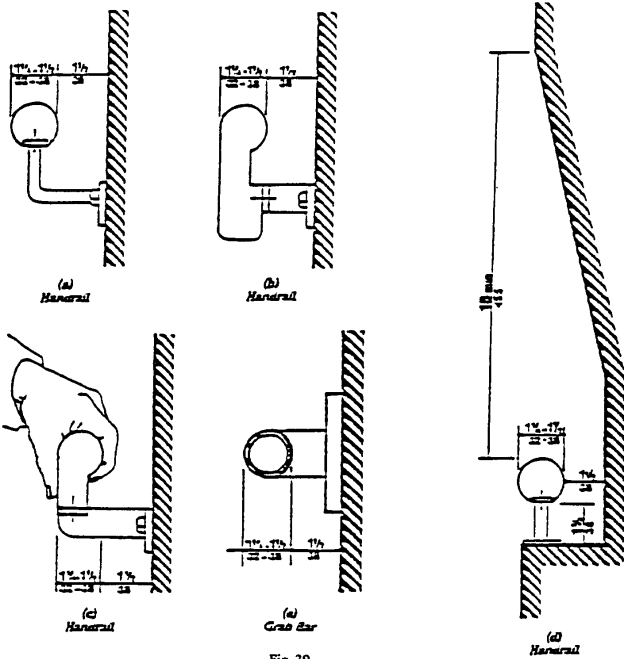
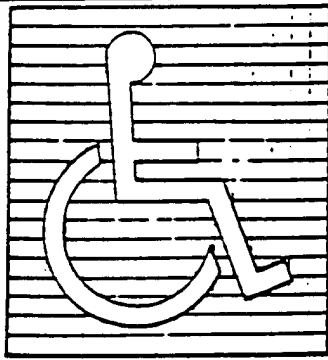


Fig. 39
Size and Spacing of Handrails and Grab Bars



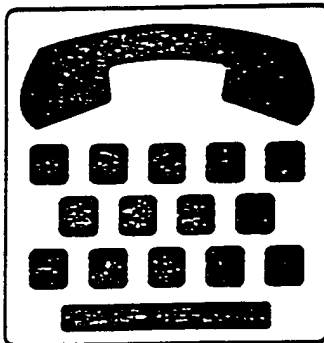
(a)

Proportions
International Symbol of Accessibility



(b)

Display Conditions
International Symbol of Accessibility



(c)

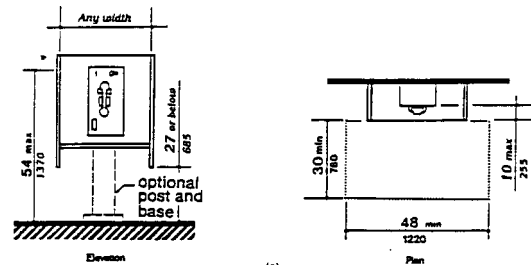
International TDD Symbol



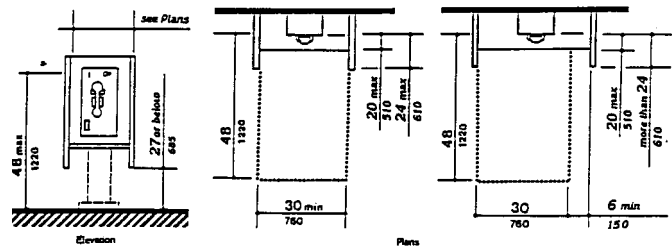
(d)

International Symbol of Access for Hearing Loss

Fig. 43
International Symbols



(a)
Side Reach Possible



(b)
Forward Reach Required

Height to highest operable parts which are essential to basic operation of telephone.

Fig. 44
Mounting Heights and Clearances for Telephones

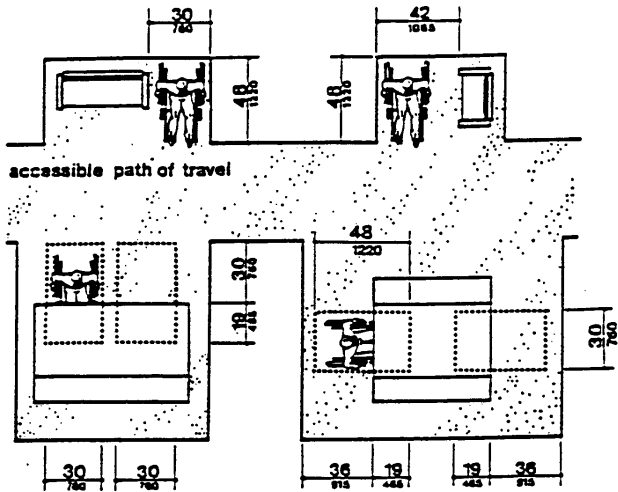


Fig. 45
Minimum Clearances for Seating and Tables

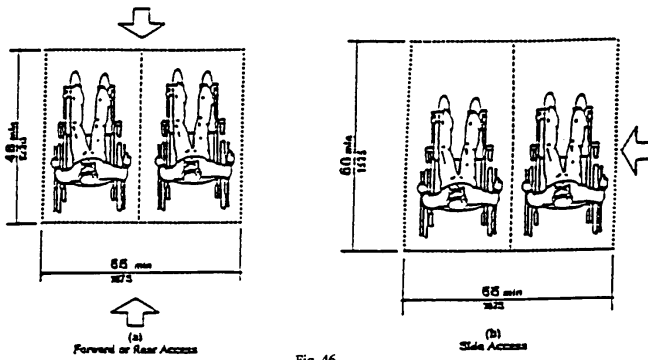


Fig. 46
Space Requirements for Wheelchair
Seating Spaces in Series

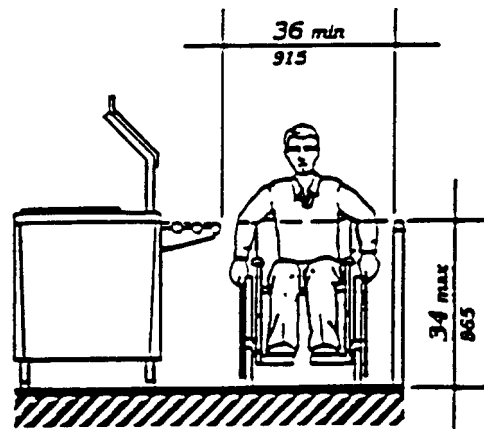


Fig. 53
Food Service Lines

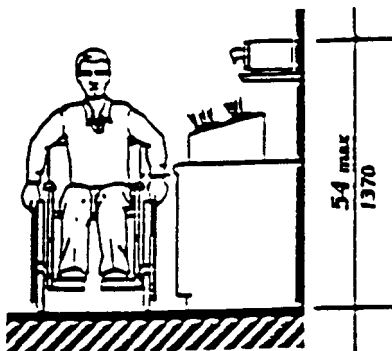


Fig. 54
Tableware Areas

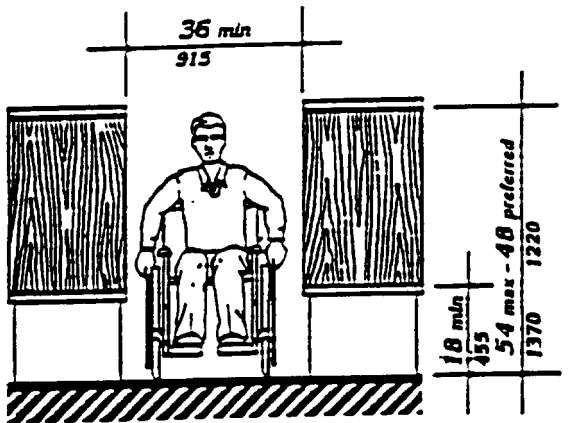


Fig. 55
Card Catalog

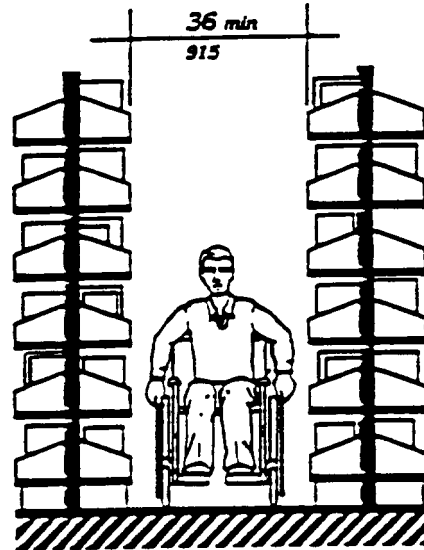


Fig. 56
Stacks

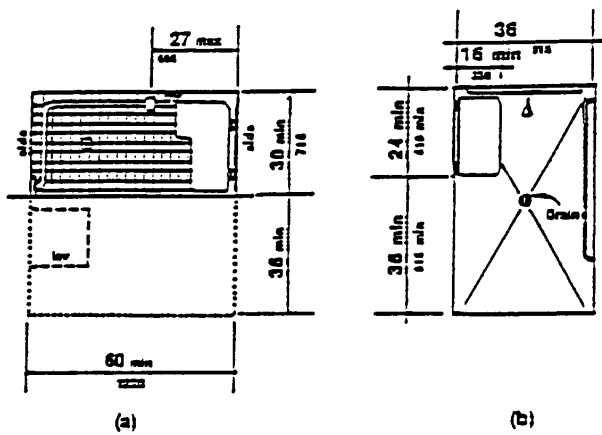


Fig. 57
Roll-in Shower with Folding Seat

CHAPTER 11 - PART 2 - ACCESSIBILITY FOR COVERED MULTIFAMILY DWELLINGS

Subpart A

1.1 Purpose. The purpose of this part is to implement a rule within the statutory authority of IC 22-13-2-2 and IC 22-13-4-1 that is compatible with the Fair Housing Act (Title VIII of the Civil Rights Act of 1988, 42 U.S.C. 3535(d)). The act prohibits discrimination on the basis of disability and requires that covered multifamily dwellings be accessible by persons with a disability.

1.2 Scope. Part 2 applies only to the design and construction of Class I covered multifamily dwellings.

2.0 Definitions.

ACCESSIBLE, when used with respect to the public and common use areas of a building containing covered multifamily dwellings, means that the public or common use areas of the building can be approached and entered by persons with a disability.

ACCESSIBLE ROUTE means a continuous unobstructed path connecting accessible elements and spaces in a building or within a site that can be negotiated by a person with a disability using a wheelchair. Interior accessible routes may include corridors, floors, ramps, elevators, and lifts. Exterior accessible routes may include parking access aisles, curb ramps, walks, ramps, and lifts. A route that complies with the appropriate requirements of CABO/ANSI A117.1 1992 is an accessible route.

ADAPTABLE DWELLING UNITS, when used with respect to covered multifamily dwellings, means dwelling units that include the features of adaptable design specified in section 3.0(c)(2) through 3.0(c)(3).

BATHROOM means a bathroom which includes a water closet (toilet), lavatory (sink), and bathtub or shower. It does not include single-fixtured facilities or those with only a water closet and lavatory. It does include a compartmented bathroom. A compartmented bathroom is one in which the fixtures are distributed among interconnected rooms. A compartmented bathroom is considered a single unit and is subject to the requirements for bathrooms.

BUILDING, for the purpose of this part, means a structure, facility, or portion thereof that contains or serves four (4) or more dwelling units.

BUILDING ENTRANCE ON AN ACCESSIBLE ROUTE means an accessible entrance to a building within the site where the covered multifamily dwelling is located that is

connected by an accessible route to public transportation stops, to parking or passenger loading zones, or to public streets or sidewalks, if available. A building entrance that complies with CABO/ANSI A117.1 1992 complies with the requirements of this paragraph.

CABO/ANSI A117.1-1992 as adopted by reference in subpart B of part 2 refers to the American National Standard-Accessible and Usable Buildings and Facilities CABO/ANSI A117.1-1992.

CLEAR means unobstructed.

COMMON USE AREA means rooms, spaces, or elements inside or outside of a building that are made available to the residents of a building or the guests thereof. These areas include hallways, lounges, lobbies, laundry rooms, refuse rooms, mail rooms, recreational areas, and passageways among and between buildings.

COVERED MULTIFAMILY DWELLINGS means buildings consisting of four (4) or more dwelling units if such buildings have one (1) or more elevators; and ground floor dwelling units in other buildings consisting of four (4) or more dwelling units. Dwelling units within a single structure separated by area separation walls do not constitute separate buildings.

DWELLING UNIT, for the purpose of this part, means a single unit of residence for a household of one (1) or more persons. Examples of dwelling units covered by this part include:

- (1) condominiums;
- (2) an apartment unit within an apartment building;
- (3) other types of dwellings in which sleeping accommodations are provided but toileting or cooking facilities are shared by occupants of more than one (1) room or portion of the dwelling.

ENTRANCE means any exterior access point to a building or portion of a building used by residents for the purpose of entering. For purposes of this chapter, an entrance does not include a door to a loading dock or a door used primarily as a service entrance, even if residents without disabilities occasionally use that door to enter.

FINISHED GRADE, for purposes of this part, means the ground surface of the site after all construction, leveling, grading, and development has been completed.

GROUND FLOOR means a floor of a building with a building entrance on an accessible route. A building may have one (1) or more ground floors. Where the first floor containing dwelling units in a building is above grade, all units on that floor must be served by a building entrance on an accessible route. This floor will be considered to be a ground floor.

LOFT means:

- (1) an intermediate level between the floor and ceiling of any story located within a room or rooms of a dwelling; and
- (2) does not contain the only:
 - (A) bathing facility;
 - (B) lavatory;
 - (C) water closet;
 - (D) living area;
 - (E) eating area; or
 - (F) cooking area; within the dwelling unit.

MULTISTORY DWELLING UNIT means a dwelling unit with finished living space located on one (1) floor and the floor or floors immediately above or below it.

POWDER ROOM means a room with only a water closet (toilet) and lavatory (sink).

PUBLIC AREAS means interior or exterior rooms or spaces of a building that are made available to the general public.

SINGLE-STORY DWELLING UNIT means a dwelling unit with all finished living space located on one (1) floor.

SITE means a parcel of land bounded by a property line or a designated portion of a public right-of-way.

SLOPE means the relative steepness of the land between two (2) points.

STORY, for the purposes of this part, means that portion of a dwelling unit between the upper surface of any floor and the upper surface of the floor next above, or the roof of the unit. Within the context of dwelling units, the terms “story” and “floor” are synonymous.

UNDISTURBED SITE means before construction, leveling, grading, or development associated with the current project.

VEHICULAR OR PEDESTRIAN ARRIVAL POINTS means public or resident parking areas, public transportation stops, passenger loading zones, and streets or

sidewalks within the site where the covered multifamily dwelling is located.

VEHICULAR ROUTE means a route intended for vehicular traffic, such as a street, driveway, or parking lot, within the site where the covered multifamily dwelling is located.

3.0 Design and Construction Requirements.

(a) Covered multifamily dwellings shall be designed and constructed to have at least one (1) building entrance on an accessible route unless it is impractical to do so because of the terrain or unusual characteristics of the site.

(b) Reserved.

(c) All covered multifamily dwellings with a building entrance on an accessible route shall be designed and constructed in such a manner that:

- (1) the public and common use areas are readily accessible to persons with a disability;
- (2) all the doors designed to allow passage into and within all premises are sufficiently wide to allow passage by persons with a disability in wheelchairs;
- (3) all premises within covered multifamily dwelling units contain the features of adaptable design, such as:
 - (i) an accessible route into and through the covered dwelling unit;
 - (ii) light switches, electrical outlets, thermostats, and other environmental controls in accessible locations;
 - (iii) reinforcements in bathroom walls to allow later installation of grab bars around the toilet, tub, shower stall, and shower seat, where such facilities are provided; and
 - (iv) kitchens and bathrooms such that an individual in a wheelchair can maneuver about the space.

(d) Reserved.

(e) Compliance with the appropriate requirements of CABO/ANSI A117.1 1992 will satisfy the requirements of paragraph (c)(3).

4.0 Reserved.

5.0 Guidelines.

Requirement 1. Accessible Building Entrance on an Accessible Route.

(1) Building entrance. Each building on a site shall have at least one (1) building entrance on an accessible route unless prohibited by the terrain, as provided in paragraphs *[sic., paragraph]* (2)(a)(i) or (2)(a)(ii), or unusual characteristics of the site, as provided in paragraph (2)(b). This requirement applies both to a single building on a site and to multiple buildings on a site.

(a) Separate Ground Floor Unit Entrances. When a ground floor unit of a building has a separate entrance, each such ground floor unit shall be served by an accessible route, except for any unit where the terrain or unusual characteristics of the site prohibit the provision of an accessible route to the entrance of that unit.

(b) Multiple Entrances. Only one (1) entrance is required to be accessible to any one (1) ground floor of a building, except in cases where an individual dwelling unit has a separate exterior entrance, or where the building contains clusters of dwelling units, with each cluster sharing a different exterior entrance. In every case, the accessible entrance shall be on an accessible route to the dwelling units it serves.

(2) Site impracticability. Covered multifamily dwellings with elevators shall be designed and constructed to provide at least one (1) accessible entrance on an accessible route, regardless of terrain or unusual characteristics of the site. Covered multifamily dwellings without elevators shall be designed and constructed to provide at least one (1) accessible entrance on an accessible route unless terrain or unusual characteristics of the site are such that the following conditions are found to exist:

(a) Site impracticability due to terrain. There are two (2) alternative tests for determining site impracticability due to terrain: the individual building test provided in paragraph (i), or the site analysis test provided in paragraph (ii). A site with a single building having a common entrance for all units shall be analyzed as described in paragraph (i). All other sites, including a site with a single building having multiple entrances serving either individual dwelling units or clusters of dwelling units, may be analyzed using the methodology in either paragraph (i) or paragraph (ii). For these sites for which either

test is applicable, regardless of which test is selected, at least twenty percent (20%) of the total ground floor units in nonelevator buildings, on any site, shall comply with Chapter 11, Part 2.

(i) Individual building test. It is impractical to provide an accessible entrance served by an accessible route when the terrain of the site is such that:

(A) the slopes of the undisturbed site measured between the planned entrance and all vehicular or pedestrian arrival points within fifty (50) feet of the planned entrance exceed ten percent (10%); and

(B) the slopes of the planned finished grade measured between the entrance and all vehicular or pedestrian arrival points within fifty (50) feet of the planned entrance also exceed ten percent (10%).

If there are no vehicular or pedestrian arrival points within fifty (50) feet of the planned entrance, the slope for the purpose of this paragraph (i) will be measured to the closest vehicular or pedestrian arrival point.

For purposes of this part, vehicular or pedestrian arrival points include public or resident parking areas and passenger loading zones, streets, or sidewalks. To determine site impracticability, the slope would be measured at ground level from the point of the planned entrance on a straight line to each vehicular or pedestrian arrival point that is within fifty (50) feet of the planned entrance or, if there are no vehicular or pedestrian arrival points within that specified area, the vehicular or pedestrian arrival point closest to the planned entrance. In the case of sidewalks, the closest point to the entrance will be where a public sidewalk entering the site intersects with the sidewalk to the entrance. In the case of resident parking areas, the closest point to the planned entrance will be measured from the entry point to the parking area that is located closest to the planned entrance.

(ii) Site analysis test. Alternatively, for a site having multiple buildings, or a site with a single building with multiple entrances, impracticability of providing an accessible entrance served by an accessible route can be established by the following steps:

(A) The percentage of the total building area of the undisturbed site with a natural grade less than ten percent (10%) slope shall be calculated. The analysis of the existing slope

(before grading) shall be done on a topographic survey with two (2) foot contour intervals with slope determination made between each successive interval. The accuracy of the slope analysis shall be certified by an architect, engineer, landscape architect, or surveyor.

(B) To determine the practicality of providing accessibility to planned multifamily dwellings based on the topography or the existing natural terrain, the minimum percentage of ground floor units to be made accessible should equal the percentage of the total building area (not including flood plains, wetlands, or other restricted use areas) of the undisturbed site that has an existing natural grade of less than ten percent (10%) slope.

(C) In addition to the percentage established in paragraph (B), all ground floor units in a building, or ground floor units served by a particular entrance, shall be made accessible if the entrance to the units is on an accessible route, defined as a walkway with a slope between the planned entrance and a pedestrian or vehicular arrival point, that is no greater than eight and thirty-three hundredths percent (8.33%).

(b) Site impracticality due to unusual characteristics. Unusual characteristics include sites located in a federally-designated flood plain or coastal high-hazard area and sites subject to other similar requirements of law, rule, regulation, or ordinance that the lowest floor or the lowest structural member of the lowest floor must be raised to a specified level at or above the base flood elevation. An accessible route to a building entrance is impractical due to unusual characteristics of the site when:

(i) the unusual site characteristics result in a difference in finished grade elevation exceeding thirty (30) inches and ten percent (10%) measured between an entrance and all vehicular or pedestrian arrival points within fifty (50) feet of the planned entrance; or

(ii) if there are no vehicular or pedestrian arrival points within fifty (50) feet of the planned entrance, the unusual characteristics result in a difference in finished grade elevation exceeding thirty (30) inches and ten percent (10%)

measured between an entrance and the closest vehicular or pedestrian arrival point.

(3) Exceptions to site impracticality. Regardless of site considerations described in paragraphs (1) and (2), an accessible entrance on an accessible route is practical when:

(a) there is an elevator connecting the parking area with the dwelling units on a ground floor, (in this case, those dwelling units on the ground floor served by an elevator, and at least one (1) of each type of public and common use areas, would be subject to this part.) however:

(i) where a building elevator is provided as a means of creating an accessible route to dwelling units on a ground floor, the building is not considered an elevator building for purposes of this part; hence, only the ground floor dwelling units would be covered; and

(ii) if the building elevator is provided as a means of access to dwelling units other than dwelling units on a ground floor, then the building is an elevator building, which is a covered multifamily dwelling and the elevator in that building must provide accessibility to all dwelling units in the building, regardless of the slope of the natural terrain; or

(b) an elevated walkway is planned between a building entrance and a vehicular or pedestrian arrival point and the planned walkway has a slope no greater than ten percent (10%).

(4) Accessible Entrance. An entrance that complies With Section 4.14 of CABO/ANSI A117.1 1992, complies with section 3.0(a).

(5) Accessible Route. An accessible route that complies with CABO/ANSI A117.1 1992 will meet section 3.0(a). If the slope of the finished grade between covered dwellings and a public or common use facility (including parking) exceeds eight and thirty-three hundredths percent (8.33%) or where other physical barriers (natural or manmade) or legal restrictions, all of which are outside the control of the owner, prevent the installation of an accessible pedestrian route, an acceptable alternative is to provide access via a vehicular route, so long as necessary site provisions such as parking spaces and curb ramps are provided at the public or common use facility.

Requirement 2. Accessible Public and Common Areas.

The following chart identifies the public and common areas that shall be made accessible, cites the

appropriate section of the CABO/ANSI A117.1 1992, and describes the appropriate application of the specifications:

BASIC COMPONENTS FOR ACCESSIBLE
PUBLIC AND COMMON AREAS OR FACILITIES
CABO/ANSI A117.1-1992

Accessible Element or Space	Section	Application
1. Accessible route(s)	4.3	Within boundary of the site: (a) from accessible parking spaces, accessible passenger loading zones, and streets or sidewalks to accessible building entrances. (b) connecting accessible buildings, facilities, elements, and spaces that are on the same site. (c) connecting accessible building or facility entrances with accessible spaces and elements within the building or facility, including adaptable dwelling units. (d) where site or legal constraints prevent a route accessible to wheelchair users between covered multifamily dwellings and public or common-use facilities elsewhere on the site.
2. Protruding objects	4.4	Accessible routes or maneuvering space including, but not limited to, halls, corridors, passageways, or aisles.
3. Ground and floor surface	4.5	Accessible routes, rooms, and spaces, including floors, surface treatments walks, ramps, stairs, and curb ramps.
4. Parking and passenger-loading zones	4.6	See IC 5-16-9.
5. Curb ramps	4.7	Accessible routes crossing curbs.
6. Ramps	4.8	Accessible routes with slopes greater than 1:20.
7. Stairs	4.9	Stairs on accessible routes connecting levels not connected by an elevator.
8. Elevator	4.10	If provided.
9. Platform lift	4.11	May be used in lieu of an elevator or ramp under certain conditions.
10. Drinking fountains and water coolers	4.15	Fifty percent (50%) of fountains and water cooler [<i>sic.</i> , <i>coolers</i>] on each floor, or at least one (1), if provided, in the facility or at the site.
11. Toilet rooms and bathing facilities (including water closets, toilet rooms and stalls, urinals, lavatories and mirrors, bathtubs, shower stalls, and sinks)	4.22	Where provided in public-use and common-use facilities, at least one (1) of each fixture provided per room.
12. Common-use spaces and facilities (swimming pools and playgrounds, entrances, rental offices, lobbies, elevators, mailbox areas, lounges, halls and corridors, and similar spaces)	4.1 through 4.28	If provided in the facility or at the site.

Requirement 3. Usable Doors.

Section 3.0(c)(2) applies to doors that are part of an accessible route in the public and common areas of multifamily dwellings and to doors into and within individual dwelling units.

(1) On accessible routes in public and common use areas, and for primary entry doors to covered units, doors complying with Section 4.13 of CABO/ANSI A117.1 1992 will comply with this requirement.

(2) Within individual dwelling units, doors intended for user passage through the unit which have a clear opening of at least thirty-two (32) inches nominal width when the door is open ninety (90) degrees, measured between the face of the door and the stop, will conform to section 3.0(c)(2) (see Fig. 1(a), 1(b), and 1(c)). Openings more than twenty-four (24) inches in depth are not considered doorways (see Fig. 1(d)).

NOTE: A thirty-four (34) inch door, hung in the standard manner, provides an acceptable, nominal thirty-two (32) inch clear opening. This door can be adapted to provide a wider opening by using offset hinges or by removing lower portions of the door stop, or both. Pocket or sliding doors are acceptable doors in covered dwelling units and have the added advantage of not impinging on clear floor space in small rooms. The nominal thirty-two (32) inch clear opening provided by a standard six (6) foot sliding patio door assembly is acceptable.

Requirement 4. Accessible route into and through the covered dwelling unit.

Accessible routes into and through dwelling units will conform to section 3.0(c)(3)(i) if the requirements in this section are met.

(1) A minimum clear width of thirty-six (36) inches is provided.

(2) In single-story dwelling units, changes in levels within the dwelling unit with heights between one-fourth ($\frac{1}{4}$) inch and one-half ($\frac{1}{2}$) inch are beveled with a slope no greater than 1:2. Except for design features, such as a loft or an area on a different level within a room, for example, a sunken living room, changes in levels greater than one-half ($\frac{1}{2}$) inch are ramped or have other means of access. Where a single-story dwelling unit has special design features, all portions of the single-story unit, except the loft or the sunken or raised area, are on an accessible route; and

(a) In single-story dwelling units with lofts, all

spaces other than the loft are on an accessible route.

(b) Design features such as sunken or raised functional areas do not interrupt the accessible route through the remainder of the dwelling unit.

(3) In multistory dwelling units in buildings with elevators, the story of the unit that is served by the building elevator:

(a) is the primary entry to the unit;

(b) complies with Requirements 2 through 7 with respect to the rooms located on the entry/accessible floor; and

(c) contains a bathroom or powder room which complies with Requirement 7. (NOTE: Multistory dwelling units in nonelevator buildings are not covered dwelling units because, in such cases, there is no ground floor unit.)

(4) Except as provided in paragraphs (5) and (6), thresholds at exterior doors, including sliding door tracks, are no higher than three-fourths ($\frac{3}{4}$) inch. Thresholds and changes in level at these locations are beveled with a slope no greater than 1:2.

(5) Exterior deck, patio, or balcony surfaces are not more than one-half ($\frac{1}{2}$) inch below the floor level of the interior of the dwelling unit, unless they are constructed of impervious material such as concrete, brick, or flagstone. In such case, the surface is not more than four (4) inches below the floor level of the interior of the dwelling unit.

(6) At the primary entry door to dwelling units with direct exterior access, outside landing surfaces constructed of impervious materials, such as concrete, brick, or flagstone, are not more than one-half ($\frac{1}{2}$) inch below the floor level of the interior of the dwelling unit. The finished surface of this area that is located immediately outside the entry may be sloped, up to one-eighth ($\frac{1}{8}$) inch per foot, for drainage.

Requirement 5. Light Switches, Electrical Outlets, Thermostats, and Other Environmental Controls in Accessible Locations.

Light switches, electrical outlets, thermostats, and other environmental controls will conform to section 3.0(c)(3)(ii) if operable parts of the controls are located no higher than forty-eight (48) inches, and no lower than fifteen (15) inches, above the floor. If the reach is over an

obstruction, for example, an overhanging shelf, between twenty (20) and twenty-five (25) inches in depth, the maximum height is reduced to forty-four (44) inches for forward approach; or forty-six (46) inches for side approach, provided the obstruction, for example, a kitchen base cabinet, is no more than twenty-four (24) inches in depth. Obstructions shall not exceed more than twenty-five (25) inches from the wall beneath a control (see Fig. 2).

Requirement 6. Reinforced Walls for Grab Bars.

Reinforced bathroom walls to allow later installation of grab bars around the toilet, tub, shower stall, and shower seat, where such facilities are provided, will conform to section 3.0(c)(3)(iii) (see Figs. 3, 4, and 5). Where the toilet is not placed adjacent to a side wall, the bathroom will comply if provision is made for installation of floor mounted foldaway or similar alternative grab bars. Where the powder room is the only toilet facility located on an accessible level of a multistory dwelling unit, it must comply with this requirement for reinforced walls for grab bars.

NOTE: Installation of bathtubs or showers is not limited by the illustrative figures, such as reinforced areas, for installation of floor-mounted grab bars.

Reinforcement for grab bars may be provided in a variety of ways, for example, by plywood or wood blocking, so long as the necessary reinforcement is placed so as to permit later installation of appropriate grab bars.

Requirement 7. Usable Kitchens and Bathrooms.

(1) Usable kitchens. Usable kitchens will conform to section 3.0(c)(3)(iv) if:

- (a) a clear floor space at least thirty (30) inches by forty-eight (48) inches that allows a parallel approach by a person in a wheelchair is provided at the range or cooktop and sink, and either a parallel or forward approach is provided at oven, dishwasher, refrigerator/freezers, or trash compactor (see Fig. 6);
- (b) clearance between counters and all opposing base cabinets, countertops, appliances, or walls is at least forty (40) inches; and
- (c) in U-shaped kitchens with sink or range or cooktop at the base of the “U”, a sixty (60) inch turning radius is provided to allow parallel approach, or base cabinets are removable at that location to allow knee space for a forward approach.

(6) Usable bathrooms. To meet the requirements of section 3.0(c)(3)(iv), either all bathrooms in the dwelling unit shall comply with the provisions of paragraph (a), or at least one (1) bathroom in the dwelling unit complies with the provisions of paragraph (b), and all other bathrooms and powder rooms within the dwelling unit must be on an accessible route with usable entry doors in accordance with Requirements 3 and 4.

However, in multistory dwelling units, only those bathrooms on the accessible level are subject to the requirements of section 3.0(c)(3)(iv). Where a powder room is the only facility provided on the accessible level of a multistory dwelling unit, the powder room shall comply with provisions of paragraph (a) or (b). Powder rooms that are subject to the requirements of section 3.0(c)(3)(iv) shall have reinforcements for grab bars as provided in Requirement 6.

(a) Bathrooms that have reinforced walls for grab bars (see Requirement 6) shall conform to section 3.0(c)(3)(iv) if:

- (i) Sufficient maneuvering space is provided within the bathroom for a person using a wheelchair or other mobility aid to enter and close the door, use the fixtures, reopen the door, and exit. Doors may swing into the clear floor space provided at any fixture if the maneuvering space is provided. Maneuvering spaces may include any kneespace or toespace available below bathroom fixtures.
- (ii) Clear floor space is provided at fixtures as shown in Fig. 7(a), 7(b), 7(c), and 7(d). Clear floor space at fixtures may overlap.
- (iii) If the shower stall is the only bathing facility provided in the covered dwelling unit, the shower stall shall measure at least thirty-six (36) inches by thirty-six (36) inches.

NOTE: Cabinets under lavatories are acceptable provided the bathroom has space to allow a parallel approach by a person in a wheelchair; if parallel approach is not possible within the space, any cabinets provided would have to be removable to afford the necessary knee clearance for forward approach.

(b) Bathrooms that have reinforced walls for grab bars (see Requirement 6) will conform to section 3.0(c)(3)(iv) if:

(i) Where the door swings into the bathroom, there is a clear space (approximately, two (2) feet six (6) inches by four

(4) feet) within the room to position a wheelchair or other mobility aid clear of the path of the door as it is closed and to permit use of fixtures. This clear space can include any kneespace and toespace available below bathroom fixtures.

(ii) Where the door swings out, a clear space is provided within the bathroom for a person using a wheelchair or other mobility aid to position the wheelchair such that the person is allowed use of fixtures. There also shall be clear space to allow persons using wheelchairs to reopen the door to exit.

(iii) When both tub and shower fixtures are provided in the bathroom, at least one (1) is made accessible. When two (2) or more lavatories in a bathroom are provided, at least one (1) is made accessible.

(iv) Toilets are located within bathrooms in a manner that permits a grab bar to be installed on one (1) side of the fixture. In locations where toilets are adjacent to walls or bathtubs, the centerline of the fixture is a minimum of one (1) foot six (6) inches from the obstacle. The other (nongrab bar) side of the toilet fixture is a minimum of one (1) foot three (3) inches from

the finished surface of adjoining walls, vanities, or the edge of a lavatory (see Fig. 7(a)).

(v) Vanities and lavatories are installed with the centerline of the fixture a minimum of one (1) foot three (3) inches horizontally from an adjoining wall or fixture. The top of the fixture rim is a maximum height of two (2) feet ten (10) inches above the finished floor. If kneespace is provided below the vanity, the bottom of the apron is at least two (2) feet three (3) inches above the floor. If provided, full kneespace (for front approach) is at least one (1) foot five (5) inches deep (see Fig. 7(c)).

(vi) Bathtubs and tub/showers located in the bathroom provide a clear access aisle adjacent to the lavatory that is at least two (2) feet six (6) inches wide and extends for a length of four (4) feet (measured from the head of the bathtub) (see Fig. 8).

(vi) Stall showers in the bathroom may be of any size or configuration. A minimum clear floor space two (2) feet six (6) inches wide by four (4) feet shall be available outside the stall (see Fig. 7(d)). If the shower stall is the only bathing facility provided in the covered dwelling unit, or on the accessible level of a covered multistory unit, and measures a nominal thirty-six (36) inches by thirty-six (36) inches or smaller, the shower stall must have reinforcement to allow for installation of an optional hung bench seat.

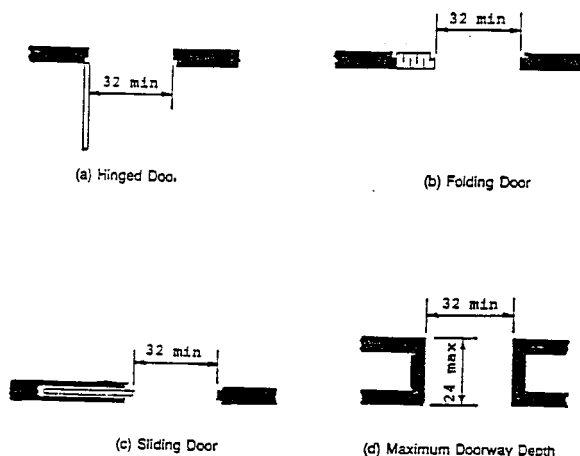
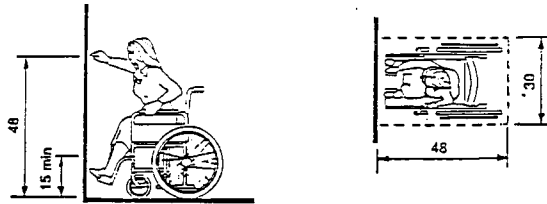
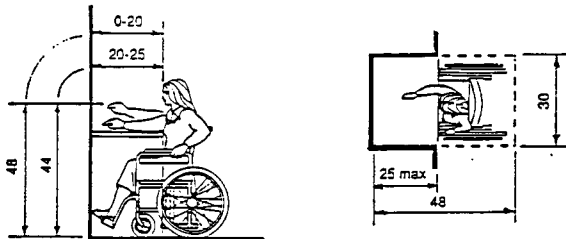


Fig. 1 Clear Doorway Width and Depth

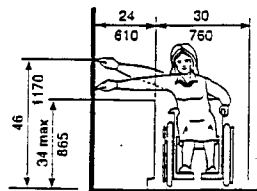


(a) Forward Reach Limit



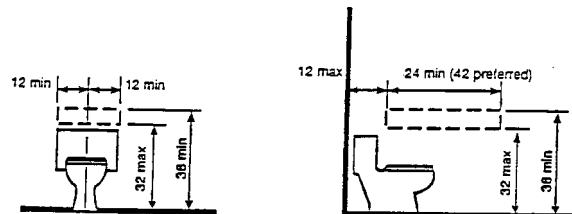
NOTE: Clear knee space should be as deep as the reach distance.

(b) Maximum Forward Reach Over an Obstruction



(c) Maximum Side Reach Over Obstruction

Fig. 2 Reach Ranges



Reinforced Areas for Installation of Grab Bars

Fig. 3 Water Closets in Adaptable Bathrooms

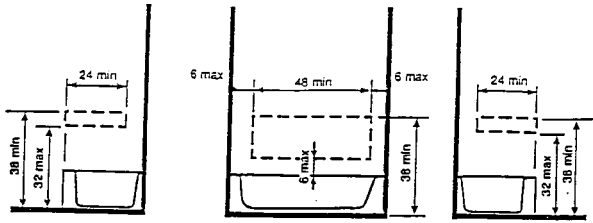


Fig. 4 Location of Grab Bar Reinforcements
for Adaptable Bathtubs

NOTE: The areas outlined in dashed lines represent locations for future installation of grab bars for typical fixture configurations.

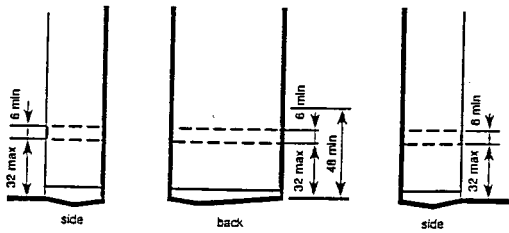


Fig. 5 Location of Grab Bar Reinforcements for Adaptable Showers

NOTE: The areas outlined in dashed lines represent locations for future installation of grab bars.

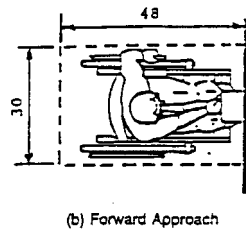
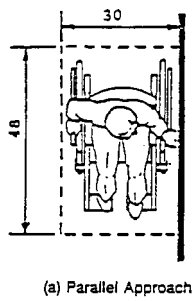
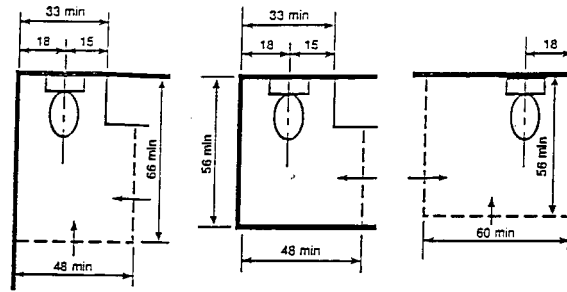
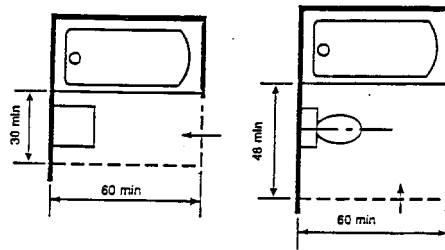


Fig. 6 Minimum Clear Floor Space for Wheelchairs

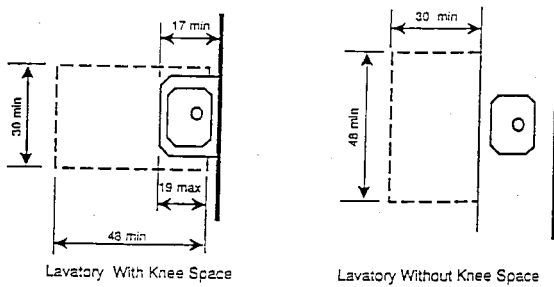


(a) Clear Floor Space for Water Closets

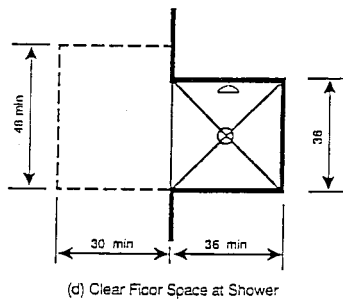


(b) Clear Floor Space at Bathtubs

Fig. 7 Clear Floor Space for Adaptable Bathrooms



(c) Clear Floor Space at Lavatories



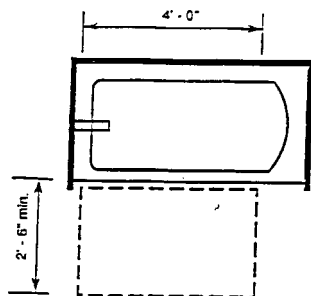


Fig. 8 Alternative Specification – Clear Floor Space at Bathtub

Subpart B CABO/ANSI A117.1 - 1992

That certain document being titled as the American National Standard, Accessible and Usable Buildings and Facilities CABO/ANSI A117.1-1992, published by the Council of American Building Officials, 5203 Leesburg Pike, #708, Falls Church, Virginia 22041, is hereby adopted by reference, as if fully set out in this rule, same and except the following revisions:

Delete section 1 without substitution.

Delete section 2 without substitution.

Delete subsection 3.3 and substitute as follows: ASME/ANSI A17.1 means the Indiana Safety Code for Elevators, Escalators, Manlifts, and Hoists (675 IAC 21).

Change the following definitions in section 3.2 to read as follows: (a) "ADMINISTRATIVE AUTHORITY" means the state building commissioner or officer of a local unit of government empowered by law to administer and enforce the rules of the fire prevention and building safety commission.

(b) "TEMPORARY" means a temporary structure erected as defined in the General Administrative Rules (675 IAC 12-6).

Delete subsection 4.6.2 Parking Spaces and substitute to read as follows: Parking shall comply with IC 5-16-9.

Change subsection 4.8.2 to read as follows: Ramps in new construction shall have a slope not steeper than 1:12. The rise for any ramp run shall be thirty (30) inches (seven hundred sixty (760) millimeters) maximum (see Fig. B4.8.2).

Delete Table 4.8.2 without substitution.

Delete subsection 4.10.2.

Change subsection 4.11 to read as follows: Wheelchair lifts, if provided, shall comply with the Indiana Safety Code for Elevators, Escalators, Manlifts, and Hoists (675 IAC 21).

Delete the first sentence of subsection 4.13.11.

Delete in subsection 4.13.12 "ANSI/BHMA A156.10" and substitute "UBC Standard No. 10-1 (675 IAC 13)".

Delete in subsection 4.13.13 "ANSI/BHMA A156.19" and substitute "UBC Standard No. 10-1 (675 IAC 13)".

Delete subsection 4.23 without substitution.

Change subsection 4.26.1 to read as follows: Alarms required by this code shall conform to subsection 4.26.

Delete subsection 4.30 without substitution.

Delete subsection 4.31 without substitution.

Delete subsection 4.32 without substitution.

Change subsection 4.33.4 to read as follows: Accessible kitchens shall comply with the requirements of section 4.33.4.

Delete subsections 4.33.4.6, 4.33.4.7, 4.33.4.8, 4.33.4.9, 4.33.4.10, 4.33.5, 4.33.5.1, and 4.33.5.2 without substitution.

Appendix A is not adopted and is for information purposes only. (675 IAC 13-2.3-131; filed Mar 31, 1998, 1:45 p.m.: 21 IR 2842; errata filed Nov 16, 1998, 3:05 p.m.: 22 IR 1074; filed Jul 29, 1999, 11:05 a.m.: 22 IR 3879) Eff: May 21, 2003